THE

# AMERICAN AGRICULTURIST.

*Agriculture is the most healthful, the most useful, and the most noble employment of man.*—WASHINGTON.

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A. B. ALLEN, Editor. SAXTON & MILES, Publishers, 205 Broadway.

## TO EXCHANGE PAPERS.

As a great majority of the papers with which we exchange are of little benefit to us, we shall expect all those that wish to continue to receive this periodical, will give a favorable notice of it under their editorial head, and one insertion in their advertising columns of its prospectus, which will be found on the last page of this number, and send such papers to our office marked and done up outside so as to catch the eye at once. All journals not requested to continue the exchange may then stop their paper, although they will be sent the Agriculturist monthly, till they receive a number for January, 1846. The reason for our making this request is, that we have not time to look over the greater part of the papers sent us; we wish, therefore, to save them the trouble of enveloping them for us. We are greatly obliged by the kind notices of the press, and solicit a continuation of them, and shall be happy to reciprocate their favors in any way in our power. Any single article which may appear in their journals likely to interest us personally, or benefit the cause of agriculture, they will greatly oblige us by sending it to this office conspicuously marked and done up outside.

All editors, when agreeable to them, will please act as agents for us, taking the commissions allowed by the prospectus. In so doing a mutual benefit will be conferred. Our paper has scarcely yet been heard of in many parts of the country, and we shall be under many obligations to our cotemporaries if they will aid in making it more widely known. This can easily be done by a little effort; and as it is a work of great utility to the farmer, and does not come in competition with the newspaper press, we trust they will extend to us their generous aid.

## TO THE FRIENDS OF AGRICULTURE.

With this number commences the Fourth Volume of our journal, and in again appearing before you, we trust we shall have your renewed exertion in its behalf. Nearly all the contributors to this periodical are practical agriculturists, and speak of such things only as they are in the daily habit of performing; while others are known and esteemed for their advances in those sciences which directly benefit the farmer, and add to his power of production. The monthly perusal of such a work as this by the agricultural class, is not only of incalculable benefit to each member of it individually, but to the country at large. All, therefore, who exert themselves in the spread of this paper are doing a public good, and in making it more generally known, will be conscious of having performed a highly meritorious act. There are thousands of farmers throughout the country who do not yet see an agricultural periodical. Let every person, then, whose eye may rest upon this page, make unceasing efforts to bring one to their notice, and induce them at least to read, if they will not subscribe—trusting that they will ultimately be convinced of what is for their true interests.

Thus far we have scarcely published a word of the many highly flattering things said of this periodical; we chose to let it take its own silent course, and find such favor with a discerning public as it best might. Three handsome bound volumes are now given to the world by which to judge of it, and of these, one of the most distinguished practical farmers of the South thus writes us: "Permit me to say, without intending anything like flattery, that I regard the American Agriculturist as standing AT THE HEAD of our agricultural journals; and it has been so well sus-,

tained, that there has appeared to be no necessity for me to contribute a line to its pages." Another from the North says: "I am greatly indebted to your paper for the many practical details found therein. Its highly valuable and useful articles have directly benefited me many a dollar, and I monthly con its pages with as much eagerness and pleasure, as a young lady does the last new romance fresh from the pen of the most popular novelist."

We have recommenced the Ladies' and Boys' Departments, which are rather novel features in an agricultural journal. To the former we have promises of assistance from some of the most distinguished female writers of the day—those who are no less celebrated for their excellent knowledge of housewifery, practical good sense, shrewdness of remark, than happy manner of conveying instruction. We solicit contributions from others, and let them come from the South as well as the North. We shall consider ourselves quite unfortunate if the ladies do not ably sustain the department which we have exclusively accorded them as their own.

The engravings of the present volume will be continued as now begun, and will embrace more utility, originality, variety, and elegance, than has yet been presented to the public in any similar journal; and the matter, we humbly think, will be found equal to the embellishments. We begin the year with a very promising subscription list, which it shall not be our fault if it do not prove the largest in the Union—we at least mean to deserve such. Travelling agents will do well to give this work a preference; it is very popular where known, and in addition to it they can be furnished with other agricultural publications with which they cannot fail to be successful.

## A TRIP ON LONG ISLAND.—NO. I.

It was a warm bright morning, early in the delightful month of October, that we took a seat with our friend Mr. Cadmus, in the rail-road car at Brooklyn, bound on a little excursion up Long Island—a singular tract of country, embracing considerable variety of soil and scenery, and making a ramble over its sea-girt hills and plains one of no little interest and variety.

We started at a rapid pace, and within 30 minutes, or so, were in the pleasant village of Jamaica, and then shortly whirling over the wide naked plains of Hempstead; which remind us more than any other spot we know of in the United States, of Hounslow Heath, in England, the celebrated scene of many a highwayman's exploits in the last century. From thence we passed quickly into the pine woods and shrub-oaks of Huntington—a surprisingly wild place, when we consider its contiguity to this great city—and at the end of an hour and a half from Brooklyn, we brought up at Deer Park station, about 40 miles from New York. Here a grey nag, harnessed to a light wagon, was in waiting to take us to Mr. Cadmus's residence, six miles beyond; and then the way he commenced spinning its wheels through the shrubby forest, over the delightful, dry, hard, gravelly roads, was scarcely inferior to that of the never-tiring iron horse with his long rumbling train, which we had just left, to pursue his onward, fiery way, at nearly a right angle to our own. And why should he not, seeing he was of the famous Engineer breed? Of the same blood as the renowned Lady Suffolk, who has trotted her mile in 2 minutes and 26 seconds—a pace which it would puzzle many a clever horse to *run* in the same space of time.

Mr. Cadmus's farm is pleasantly situated almost in the village of Comac. It contains 150 acres, nearly equally divided between arable and woodland. The surface is prettily undulating; the soil of a light loam, alternated with some clay and white gravel. Mr. Cadmus has done much for this spot in the way of fertilizing the soil, draining his meadows, and setting out upward of 4,000 of the best varieties of fruit trees, which we found growing remarkably well. He raised a fine crop of corn here, this season, with a slight manuring; the hay also and other things turned out quite well. He thinks he has discovered a marl bed on this farm, as the specimen he has taken from it effervesces in vinegar. If it proves such on analysis, it will be the first we have heard of as having been found on the Island.

*Farm of Mr. Caleb Smith.*—This is a short distance from that of Mr. Cadmus, and is delightfully situated on the middle turnpike road, running through the whole length and near the centre of the Island. It contains 1,500 acres, 300 of which is under cultivation, and 1200 in woodland. That so large a portion of a farm should be left in wood, or what is termed "sprouts," may seem singular to many of our readers; but they must recollect that such land is of so light a soil, that there is no particular advantage at present, in cultivating it, they therefore leave it to grow up in wood, which, before coal became so cheap, was an excellent crop. It is cut clean over every 15 or 20 years, and yields 10 to 15 cords of fine hard wood per acre, worth formerly $2.00 to $2.50 per cord, standing. At the ordinary value of land this was a fair interest upon it; but since wood has fallen of late years, it has somewhat reduced the price of these lands, or rather, perhaps, they have not risen in the same ratio as those of a richer soil, and more susceptible of a profitable rotation of the ordinary farm crops.

The 300 acres which Mr. Smith has under cultivation, is of a good quality of land—some of it very superior. It is divided into convenient fields, well-fenced, and kept in the very nicest order. His crops are heavy; corn generally 40 to 50 bushels per acre, and other things in proportion, which is a good yield for Long Island. The stock consists of a flock of fine sheep; the polled breed of cattle; and large, thrifty white pigs. The buildings are all excellent and commodious, and there is an air of thrift, neatness, and good order pervading the whole premises which cannot be too highly commended. Indeed, we think Mr. Smith one of the best farmers of our acquaintance. He has been making some experiments with manures the past season, which he intends following up more particularly hereafter, the effects of which we hope to be able to record in our journal Sheepare unquestionably his best stock, and were the farm ours, we should stock it heavily with Merinos, plow only when the fields were well enriched by them, and then merely sufficient land to raise the roots and grain necessary for the actual consumption of the people and stock on the farm. The products to be sold with this system would be wool principally, with now and then a mutton and a beef. Under this system, the labor bills would be comparatively small, and there would be no manure to pur-

chase, save a few tons of plaster for the clover, and some ashes for a top dressing to the grass lands. We are persuaded that fine woolled and mutton sheep are the best crops for all light soils, even with a prospect of these products falling 25 per cent. below present prices, so long as grain and hay remain as low as they now are. We are not sure, either, that the woodlands would not pay better than they now do, turned into sheep pastures. We recommend at least the trial of a few acres of such by underbushing them, and cutting out all the small wood, leaving good timber trees only; then sowing orchard grass (which grows well in the shade), red-top, and clover; spread two or three bushels of plaster on this to the acre, let it get well set, then turn sheep upon it. The growth of the timber under these circumstances we think would be worth half as much as the whole of the wood, as the land now stands; and the pasture, if we are not too sanguine, would turn out from $2 to $3 worth of mutton and sheep per acre every season, which would more than double the present income—at least from the better quality of this kind of land, and in addition be constantly enriching it. These are important considerations to the Long Island farmers, and we hope they will give the matter here recommended a fair trial. We shall probably have more to say on these matters hereafter.

*Farm of Mr. Edward Henry Smith.*—This farm embraces about 400 acres, and is situated in Smithtown, on Nissequague Neck, about seven miles from Comac, up the Sound. It is naturally a very fertile tract of land, a considerable portion of it being a rich alluvial. Mr. S. has his farm under a high state of cultivation, and it produces good crops. Nor does he trust to the natural fertility of the soil for all this. He keeps a large stock to eat up his produce, and make manure, which he can the more easily do in consequence of having quite a tract of salt meadow in front of the upland, which is annually mowed, and the hay fed out principally to the younger animals. It is a good kind of stock hay, and all animals are very greedy for it as a change, and thrive well upon such fodder. Large quantities of sea-weed are gathered here, of which composts are made; it is also used to litter the barn-yard. In addition to this, there are thick beds of oyster shells deposited by the Indians on different points of the farm, which Mr. S. has not yet disturbed. He thinks they will be valuable sources of manure, and intends hereafter to avail himself of them.

The dwelling-house is a fine old building, with gambrel-roof and dormar-windows, and is handsomely situated in an open park near the bay. The farm-buildings are extremely comfortable and well-arranged, with long rows of excellent sheds, and ample subdivided yards, thus enabling Mr. S. to keep his young and old stock separate. We took a sketch of these buildings, and shall have it engraved for our paper hereafter.

*Stock.*—We found here some excellent horses, very fast trotters, of the Engineer, Mambrino, and Messenger stock; Durham cattle, and crosses of the same, together with an ox of such extraordinary dimensions, that we think he would even astonish a Kentuckian, though fresh from the excavation of a huge mastodon. We should judge him 6½ feet high over the withers, 13 feet long from the tip of his nose to the end of his rump, and of a girth probably of 10½ feet; and the joke of the matter is, he is still a youth and not done growing. The swine we noticed were nearly all Berkshires, or crosses of a Chinese boar lately imported. The former are much the handsomest animals, though the latter are equally, if not more thrifty. Our great objection to all the pure Chinese we have lately seen, is, they are hollow-backed, and have too much belly. The China ships bring more or less of these animals into this port every year, and to such of our friends as have made inquiries for them, we can say, that any of those we have seen are not worth their possessing. They are not to be compared in point of form to the improved Chinas we formerly bred at Buffalo.

On this farm we found large orchards, which, indeed, are very general on all farms on Long Island. The apples are principally fed to the stock. As an evidence of the great durability of locust and cedar, Mr. S. showed us two posts of each of these kinds of wood, which were planted in 1725, 119 years ago. The former is still sound, the latter rotted off near the ground, but sound elsewhere.

At Mr. Joel L. G. Smith's, 3 miles above, we found an excellent farm; but we had only time to stop and examine a superb pair of Durham oxen which he was fatting, and Young Mambrino, a splendid roadster stallion of a blood bay, about 16 hands high, very fast, and possessing a fine action.

We had now got fairly embarked among the Messrs. Smiths, of whom they jocosely say there are two tribes on Long Island—the Bulls, and the Tangiers. The latter take their name from a former governor of the island of Tangier, who crossed the Atlantic and settled here many years ago. The ancestor of the former came direct from England, and settled in this country when it was possessed by the Indians. Wishing to purchase some land of the aborigines for a settlement, the chiefs of the tribe holding dominion here, assembled in council, and informed Mr. S., that for certain articles of merchandise, he might have as much land as he could ride round on a bull from sun to sun, thinking that they had thus insured themselves an excellent bargain. He took them at their word, and one bright summer morning, saddled and bridled a beast which he knew to be docile, of great speed and endurance, and away he strode. By the time the sun had gone down he had accomplished 40 miles, encircling the whole of Smith-town, one of the finest and most fertile portions of Long Island, and just 10 miles square. The Indians immediately gave him a deed of it, and with it added the patronymic of the Bull Smith—and hence the local name. But Bulls or Tangiers, we found them an excellent set of fellows, and right sorry were we that our time was so limited among them. Riding bulls, however, was more fashionable in those days than now; for according to tradition, many a handsome young bride, not only on Long Island, but in Massachusetts and elsewhere, rode home with her husband after marriage on the broad cushioned back of a stately bull. Passing a holiday on the farm of an uncle of ours, when a madcap school-boy, we too once essayed a bull-ride; but as it would be a long story to tell, and has little to do with farming, and moreover, did not turn out quite as fortunately as the renowned Smith's, we shall forbear relating it in these pages.

## THE COTTON TRADE.

Professor McCay, of the University of Georgia, in a well-considered article in the Merchants' Magazine, thus sums up the probable production of Cotton for the past year, and its probable consumption for the year to come.

| | Bales. |
|---|---|
| United States Crop, - - - - - - | 2,460,000 |
| English Import from India, - - - | 150,000 |
| English Import from other places, - | 140,000 |
| Total Supply, | 2,750,000 |
| | Bales. |
| Wants of the United States, - - - - - | 370,000 |
| " France from the U. States, | 420,000 |
| " the Continent from " | 180,000 |
| " of England, - - - | 1,480,000 |
| | 2,450,000 |
| Excess of Supply, | 300,000 |

Mr. McCay anticipates that this additional burthen will be felt very severely. We must confess that we think so too. Since he wrote his article, cotton has fallen considerably, and is at this moment according to quality, from ½ to ¾d. per pound lower than ever before known in England, and full ¼ to ½ of a cent in our own country.

If our planters go on increasing their production, cotton will soon not be worth over 2 to 5 cents per lb., according to quality, on the plantation. At this price no man can live by it. What is the remedy? Simply, raise less of this and more of other products. Here is one thing for example. We believe that a pound of fine Merino wool may be raised in that part of the south suitable for keeping sheep, as cheaply as 3 pounds of cotton can be grown. The former would be worth 40 cents on the plantation at the lowest, the latter not to exceed 12 cents, which makes a difference in favor of wool-growing of more than 300 per cent.

But we hear the planters say, well, when we get to raising wool, the price of that must fall too. Suppose it does? It will still be a profitable business, even at 20 cents per pound; for sheep will enrich your lands, and fit them for other good crops, while cotton impoverishes them. Yet so long as we import wool (which we still continue to do), there is little prospect of its becoming lower; and when we have supplied ourselves, we can then look abroad for a market. Great Britain alone imports nearly, if not quite, 50,000,000 lbs. annually, and France a considerable quantity. Here, then, is a chance of a market for a long time; for we only raise now about three-fifths of what Great Britain alone imports, and it would be years before we could reach the production of 50 millions. In the mean while it must be recollected that our own consumption will be rapidly on the increase. Space forbids our pursuing this subject any further in this No., but we intend to revert to the general subject of growing wool in our next.

GENERAL AGENCY.—Mr. A. Sherman is appointed a general agent for the American Agriculturist, and is authorized to take subscriptions and appoint sub-agents in any part of the United States. We recommend him to the attention of our friends wherever he may go, and hope they will give him such assistance as will forward the object of his exertions.

SALE OF THE LATE MR. GROVE'S SAXON FLOCKS.—We understand that the sale of these superior and thorough bred Saxon sheep, particularly at Medina, Ohio, went off very spiritedly, and that the animals generally brought fair prices. The bucks were mostly taken at from $10 to $50 each; the ewes from $5 to $30. A few, as choice as any sold, still remain on hand, which can be had at moderate prices by application to S. A. Cook, Esq. of Buskirk's Bridge, N. Y. This is precious blood, and of undoubted pedigree, and those wishing superior Saxons, would do well to apply before it is too late.

HULLING INDIAN CORN.—It is said that the meal ground from Indian corn hulled, makes a much nicer article, and is greatly preferred not only in our country but in England, to that usually sent thither ground unhulled. The process of hulling corn, as practised among the French in Louisiana, is slow and expensive. Not long since we were informed that the same machine which is used for making pearl barley and split peas, with a slight modification, had been effectually used for hulling corn. Can any of our readers inform us as to this? If it be a fact, we should be highly gratified to receive a description and drawing of the machine. Anything that can be done to promote the sale of corn, or corn meal, in England, would confer a great benefit on our western states, this being one of their chief products.

MR. PARSONS IN EUROPE.—Samuel B. Parsons, Esq., of the extensive nursery establishment of Parsons & Co., at Flushing, Long Island, sailed for Havre last month, in the packet-ship Argo. He will be absent nearly a year, and visit France, Italy, Germany, and Great Britain. He will pay particular attention to horticultural subjects while abroad, and we shall hope to hear from him occasionally while absent Mr. Robert Parsons, of the same firm, returned from his European tour last October.

MR. NEWBOULD IN EUROPE.—Thomas H. Newbould, Esq., one of the most extensive farmers and stock-breeders of Livingston County, recently sailed for France, with the view of making quite an European tour. He will devote much of his time while absent to the improved systems of agriculture and fine stock abroad. It affords us great pleasure to notice such changes in regard to the views of gentlemen now crossing the Atlantic, and we cannot but hope that we shall have an opportunity of making such records often hereafter.

THE AMERICAN HERD BOOK.—We beg gentlemen to recollect that we are not the proposers, and have nothing to do with getting up this work; it is, consequently, very unfair in them to tax us with HEAVY POSTAGE on long pedigrees, the record of which *they alone* are interested in. It is a pitiful way of boring us and picking our pockets to boot. By referring to page 154 of our last volume, they will see the terms proposed for inserting pedigrees. It will be a laborious and ungrateful task to whoever undertakes it; and it was expressly premised, that postage at least should be prepaid on all communications. In other matters in which we have no earthly concern, we are often most unceremoniously taxed. If those people who do this, had the smallest sense of justice or propriety, they would pay their own postages.

## FARMERS' CLUBS.

The farmers of every neighborhood should form themselves into a club, and meet once a week during the winter for the purpose of discussing such things as tend to their mutual improvement. It is astonishing what an amount of knowledge they may thus obtain, and how greatly their interests will be forwarded. These meetings may be held at some central building in the neighborhood, such as the school-house, court-house, or a respectable tavern. But the best place, in our opinion, for a club meeting, is at the farmers' own homes; where they should be held alternately till the whole neighborhood is gone over, and then commence anew; and so keep on in regular routine. It would be well to have these meetings once a week in the winter, and once a month in the more busy season of the year. Clergymen, Physicians, Lawyers, Merchants, Mechanics, and indeed nearly every other profession associate for mutual improvement, and the furtherance of their own interests; then why should not the farmers?—the most numerous and worthy class by far in every nation, and without whom the world would soon come to an end. Unite, then, for mutual benefit and instruction in every hamlet and neighborhood—no matter how few your numbers—form yourselves into clubs. We know of nothing so well calculated to instruct you, and raise you to that rank which your individual worth and importance as a class entitle you to assume. Be you the rulers as well as the workers of the land; and allow no other class whatever in this great republic to take precedence over you, whether in the scientific or practical knowledge of your profession.

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New York Farmers' Club.—At the meeting, December 14th, Mr. Wakeman presented some mummy wheat received by Wm. H. Maxwell from Egypt. It was distributed among the members for experiments in sowing another year. Some conversation took place on the diseases of animals, but nothing particularly new was elicited. The application of sea-weed was discussed and an analysis of some soils was read. Dr. Field exhibited his beautiful cattle dog, which will drive either cattle or sheep.

*Number of Animals annually Slaughtered in this City, and principally consumed by its inhabitants.*—According to a committee of three butchers, there are 50,000 beeves, average weight 650 lbs. each, making 32,500,000 lbs.; 150,000 sheep and lambs, weight about 11,000,000 lbs.; 200,000 swine, weight 150 lbs. each, making 30,000,000 lbs.; calves were widely estimated at from 10,000 to 25,000. We do not see any account of fish and poultry, of both of which there is a great consumption.

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Annual Meeting of the New York State Agricultural Society.—This will take place in Albany about the middle of this month, and continue several days. For the particulars of the programme of this, see our last volume, page 345. It will be a most interesting and important meeting, and we hope it will be well attended by all the friends of agriculture who can possibly make it convenient to do so. We understand that the hospitality of the citizens will be extended to all strangers who visit Albany for the occasion, and everything be done to make their stay agreeable.

## PACKING PROVISIONS FOR THE ENGLISH MARKET.

We think we cannot do our readers a greater service, than copying the following article, addressed to Messrs. Hitchcock, Livingston, & Co., from an American gentleman now in England, who has paid much attention to the subject. If properly cured and packed, Great Britain, and her East and West India Colonies, would take nearly all our surplus provisions. It is of great importance to us, then, to adopt their most approved methods of packing, and if necessary, even to sacrifice a little to their whims and prejudices. But the English method is undoubtedly far superior to our own, and it is certain that we shall not command the market there till we adopt it; the sooner therefore it is done, the better, it will be for the interests of all parties concerned.

Pork.—This is cut into four or six pound pieces, according to the size of the hog. Where the carcase weighs two hundred and fifty and under, it is cut into four-pound pieces; large hogs are cut into six-pound pieces. The hog is first slit through the back-bone in half; then passed to the trimming-block, where the half-head and legs are cut off, the leaf and tender-loin taken out, and the whole side split lengthwise through both the shoulder and ham, and as near the centre as is consistent with the proper shape and size of the different pieces. From the block, the strips pass to the scales, where the weight is ascertained, and called to the man at the cutting-block, who divides each strip into the requisite sized pieces. Both the splitting and piercing require skill and judgment, as much depends upon having the pieces well and sizeably cut. From thence it goes to the rubbing-table, where each piece is thoroughly rubbed in salt in the same manner as in curing bacon. After the salt has been well rubbed in, it is put into pickling tubs, holding from three to five hundred pounds, well covered with salt, but no water or brine added. Here they remain from eight to ten days. It is taken to the washing trough or vat, where each piece is thoroughly washed in clean brine, trimmed, and *tormented*, as the process of trying is called. The *tormentor* is an instrument of wood or metal, the size of a small dish, and is thrust into the lean parts of each piece to ascertain that it is properly cured and free from taint. It is then messed and weighed, so that the requisite number of pieces shall weigh exactly the number of pounds for the barrel or tierce. It is then put up in the proper package, and freely salted while packing, and saltpetre added at the rate of a common wine-glass full to the hundred pounds. The last layer is pounded in by a heavy iron weight, and capped with coarse salt. It is then passed to the cooper, who puts in the head, and puts on to the barrel one, and on to the tierce at least three iron hoops at each end. The package is then filled with clean strong brine, bunged tight, branded, and is then ready for market.

The great utility of this method of curing, consists in the certainty of the meat keeping in good condition for years in any climate. The blood gets all drained out of the meat before it is barreled, and hence one great cause of injury is avoided. I saw pork and beef which had been two years in the barrel, which was as sweet as when first put up, and the brine was perfectly clear. A friend in London unpacked several packages of Irish and Hamburgh cured provisions, . the side of American. The contrast was anythin;

but flattering to our taste or skill. I could very readily see why our beef and pork bore so bad a name in the market, and was so much of a drug. The meat was not inferior; but it was badly messed, worse cut and cured, and the brine nearly as red as blood; and presenting, by the side of the other, not a very *palatable* appearance. The large hogs, or heavy pork, which is uniformly cut into six-pound pieces, is packed in tierces, and is then called India or Navy pork. The four-pound pieces are put in barrels.

*A Barrel of Prime Pork* should contain from twenty-five to thirty pieces, cut from the ribs, loins, chines, and belly pieces, all lying between the ham and shoulder, forming what is called the broadside or middle. Three hams and two hind-leg pieces, or three hind-leg pieces and two hams, and fifteen or twenty pieces from other parts of the hog, except no part of the head. The meat must be of prime quality, firm, and well-fattened, cut into four-pound pieces, exactly fifty to the barrel, and weigh not less than two hundred pounds nett, and must have a good capping of St. Ubes, or other coarse salt. This is indispensable. *Bacon mess pork* is so called when the full proportion of prime pieces in *prime mess* is withheld; there are, therefore, various classes of bacon pork. Tierces contain the same number, that is, fifty pieces of six pounds, and the same rules as to messing are to be observed as in the barrel. The tierce must have not less than three hundred pounds, and well capped with salt. It is usual to put in fifty-two pieces. In bacon mess, the number of prime mess pieces should be marked upon the head. No part of the hog's head is allowed in any instance.

Beef.—This is uniformly cut into eight-pound pieces, and cured, in all particulars, precisely as pork, except a larger proportion of saltpetre is used in packing. Beef is almost entirely packed in tierces. For export, tierces only should be used.

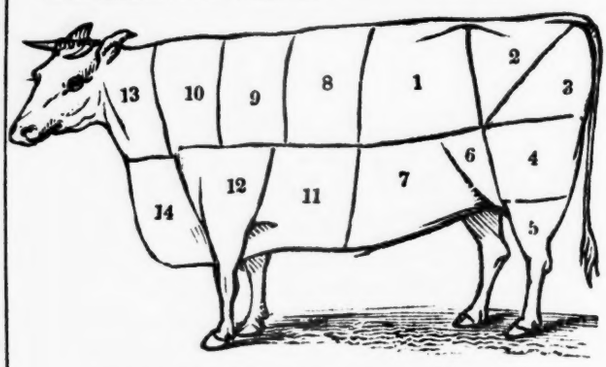
*A Tierce of Prime India Beef* should contain forty-two pieces, eight pounds each, and weigh not less than three hundred and thirty-six pounds nett. It should be made from well-fed bullocks, and contain thirty-two pieces of loins, flanks, rumps, plates, buttocks, and briskets; ten pieces, consisting of four chines, two mouse buttocks, two shells of rumps, two pieces cut close up to the neck, with bone taken out; no shins, thigh-bones, or neck. To be well salted, and capped with St. Ubes or other coarse salt.

*A Tierce of Prime Mess Beef* should contain thirty-eight pieces of eight pounds, and weigh not less than three hundred and four pounds nett. It should be made from prime fat cows or heifers; twenty-eight pieces of prime, from loins and chines, with one rib in each, flanks, rumps, plates, briskets, and buttocks; with ten coarse pieces, consisting of two neck pieces, not the scrag, two thighs or buttock bones, with some meat to them, two shells of rumps, two or even four chines, not cut too close to the neck, and two shoulder pieces with part of the blade bone in them, well salted and capped with St. Ubes or other coarse salt. The tierces, whether for beef or pork, must be made of well-seasoned oak, with eight wooden, and three iron hoops on each end.

No pains to be spared in preparing and putting up, as the neat and tasty appearances of the packages will insure a more ready sale, than if put up in a slovenly manner.

It may be useful to yourself or to your neighbors, to see the mode of cutting up the carcase of an ox in London. The provisions exported from that metropolis, rule the trade in the West India Islands, and in other distant places abroad. It is very proper, therefore, that American packers should understand the English methods.

The annexed cut will show the London mode:




CUTTING UP AN OX IN LONDON.—Fig. 1.

| *Hind-Quarter.* | *Fore-Quarter* |
|---|---|
| 1. Loin. | 8. Fore-rib. |
| 2. Rump. | 9. Middle-rib. |
| 3. Aitch or adz-bone. | 10. Chuck-rib. |
| 4. Buttock. | 11. Brisket. |
| 5. Hock. | 12. Leg of mutton piece. |
| 6. Thick flank. | 13. Clod and sticking and neck. |
| 7. Thin flank. | |

14. This, properly speaking, is the brisket, and is left out in the English cut. In a good ox of the Durham breed, it is a great point, and it gives very choice pieces for packing India Beef, as they are good meat, and perfectly free from bone.

The relative value of these different cuts of an ox may be stated at their current value, viz.: when the rumps, loins, and fore ribs of a fine ox, will fetch 8d. a pound, the thick flank, buttock, and middle rib, will fetch 6d.; the aitch or adz-bone, thin flank, chuck-rib, brisket and leg of mutton piece, 5d.; the clod and sticking and neck, 3d.; and the legs and shins, 2d. a pound. Such is the difference in value of the different cuts of an ox in the meat markets in London.

It is well to observe that the greatest attention should be paid to making the brine, or pickle, whether for Beef or Pork. Pure water should be used in its manufacture; for the sediment, from that which is impure, will settle down upon the meat, and give it a bad color, and a slimy feel. Where river or rain water is used (and soft water should always be preferred), it would be exceedingly desirable to filter it through sand; or, at least, to strain it. A great deal of Beef and Pork is utterly unfit for exportation, by the use of unfiltered water in making the brine.

In packing provisions, the tierces, barrels, &c., should be made with great care and neatness. Clean, handsome ash staves are preferred; and of such other hard, close-grained woods as will not stain the meat. Tierces should have four iron hoops or three; one at each bilge, and one at each chime; barrels with an iron hoop at each chime. The fuller hooped the barrel or tierce is, the better.

We noticed recently that the first year after the modification of the British Tariff, up to 31st August, 1842, 3,367 barrels only of American beef were imported into Liverpool. The past year, up to 31st August, there were imported into the same place,

9,812 barrels, and 10 789 tierces of beef. If we would only pack our beef neatly by the above directions, the importations in 1846 might double those of 1844, and a great increase likewise will be made in the importation of pork.

## IMPORTED POTATOES.

To the great disgrace of this part of our country, potatoes are coming over here in large quantities in most every packet ship from England, and all sold at a handsome profit. They are worth in Liverpool from 25 to 30 cents a bushel; freight, duty, and all expenses of importation, make them cost here from 40 to 45 cents, so that they sell at a fair profit in this market. They are a better quality than our own, and therefore bring a higher price. By turning to page 354 of our last volume, a simple remedy will be found for the rot in potatoes, which, if generally adopted by the farmers, would enable them to raise this indispensable root without loss, and in a healthy state. Indeed, we are of opinion that the application of lime and charcoal alone, on a good soil, are sufficient to effect so desirable a purpose. Winter is the best time to prepare to transport these materials to those places where they will be wanted in the spring. Then let the farmers look to it, and see that they have the means of preventing the rot another year among their potatoes.

## DEATH OF SAMUEL STEVENS, ESQ.

Many of our readers will have learned ere this, of the death of this eminent citizen on the 25th of November last. The press, the bar, and the municipal councils of our city, vied with each other in doing justice to his private worth and valuable public services. From us a notice is due to his memory, as he was a lover of agriculture, and ardently engaged in promoting a more scientific knowledge of the art, and the general advancement of its interests. His contributions to this journal on the cultivation of the strawberry and the peach tree, under the signature of S. S., are characterized by great vigor of expression, and acuteness of perception in all their practical details. At the time of his death, he was investigating the cause of the rot in potatoes.

Mr. Stevens died a bachelor at the age of 60. He was devoted to the welfare of others, and especially to the care of his aged mother, who survives him, still active, and in the possession of all her faculties. His father, General Ebenezer Stevens, was one of the memorable band who threw the tea overboard in Boston harbor, at the commencement of the Revolution; he was engaged also in the sanguinary battle of Saratoga, and at the siege and capture of Yorktown. He was considered the ablest artillery officer in the American army.

Mr. Stevens was the first President of the Board of Aldermen under its present organization. He took an active part in the erection of the water-tanks in Twelfth street, the value of which prepared the public mind to sustain him in the great measure of his life—the introduction of the Croton water into this city. Well may his name be blessed and cherished for this great and beneficent act. Let each fountain playing its crystal waters in our public squares, be hereafter a perpetual monument to his memory!

Mr. Stevens was happy in his domestic relations; universally respected; and by his numerous brothers, several of whom hold eminent stations in this city, most tenderly beloved. He died without pain, after a lingering disease, happy in the thought of the change which awaited him, and with a full hope of a blessed immortality.

## CORN AND COB MEAL.

We have for a long time been much in favor of Corn and Cob Meal, not only from our own experience of its value as food, but of that of others. It is a great saving in point of economy; and it is generally asserted that horses, mules, and other animals, are not near as subject to colic when fed on this kind of meal as on pure corn. Excellent machines for grinding it very rapidly by horse power, may be had in this city; according to size, from $30 to $40 each, the cost of which, at the present high rate of corn at the south and west (25 to 75 cents per bushel), would be saved on many a farm and plantation in a single month. Those who have not machines for grinding, will do well to soak their corn in hot water, slightly salted, or what would be better, to boil it. If pretty hungry, the animals will then eat the cob as well as the corn. But we are surprised that more attention, at the south and west, is not paid to the raising of oats for horse and mule feed: they are infinitely better than corn. Chemical research and practice both teach us that oats lay on good hard-working flesh, while corn makes fat, or soft flesh at the best, not fit to work on. If you wish to fat a hog or beef, give him corn; but if you want work, supply your animals with plenty of oats, barley, beans, and peas.

## SHELTER FOR STOCK.

Liebig asserts that "our clothing is merely an equivalent for a certain amount of food." In other words, if we keep ourselves comfortable and warm, we cannot eat so much, because the amount of heat to be supplied by the food is diminished.

These observations are as applicable to domestic animals as to ourselves, and they teach the farmer the necessity of providing comfortable shelter for his stock. It has been proved by repeated experiments, that animals during the winter season entirely exposed to the weather, do not thrive as well, nor keep in as good condition, as those comfortably housed, although they consume from 25 to 100 per cent. the most food: thus showing the owners of stock, that if they have not sufficient mercy upon their dumb beasts, to provide them shelter in winter, their interests at least should prompt them to do so. We can add little to what we wrote under this head in our last volume, more than to say, that an industrious and humane man will always find materials for cover for his stock, even if they be of the roughest and rudest kind. If we could do no better, we would even drive our animals into a wood for shelter, as trees and brush will at least break off the cold rough winds, if they do no more.

OFFICE HOURS.—Owing to his avocations elsewhere, the editor of this paper will more usually be found at his office from 12 o'clock noon till 2 P. M., at which time he will be pleased to see all who may be desirous of favoring him with a call.

## EXPERIMENTS WITH MANURES.

*Nitrate of Soda, Nitrate of Potash, Sulphate of Soda, Salt and Soot.*—We condense from the English Agricultural Journal, a series of experiments with the above manures, made by Mr. Hannam on several kinds of grain the past season and detailed at considerable length.

*Oats*—per imperial acre, over the same kind of land where nothing was applied, gained with 84 lbs. of nitrate soda, mixed with 168 lbs. of common salt, 5.76 bushels grain, and 304 lbs. straw; with 112 lbs. of nitrate potash, 4.26 bushels grain, and 304 lbs. straw; with 112 lbs. of nitrate potash, 4.26 bushels grain, and 280 lbs. straw; with 236 lbs. of salt, 6.66 bushels grain, and 350 lbs. straw.

*Barley* gained with 168 lbs. of nitrate soda, 14.12 bushels grain, and 572 lbs. straw; with 112 lbs. nitrate soda, mixed with the same quantity of sulphate soda, 11.55 bushels grain, and 432 lbs. straw; with 84 lbs. of nitrate soda, mixed with 168 lbs. salt, 10.42 bushels grain, and 600 lbs. straw; with 114 lbs. of nitrate potash, 11.16 bushels grain, and 714 lbs. straw; with 336 lbs. salt, 11.42 bushels grain, and 44 lbs. straw.

*Wheat* gained with 140 lbs. of nitrate soda, 5.62 bushels grain, and 424 lbs. straw; with 112 lbs. of nitrate potash, 4.25 bushels grain, and 316 lbs. straw; with 32 bushels of soot, 2.25 bushels grain, and 68 lbs. straw; with 336 lbs. of salt, 1.4 bushels grain, and decreased the straw 96 lbs.; with 140 lbs. of sulphate soda, the grain decreased .83 of a bushel, and increased the straw 28 lbs.

The good or ill success of such experiments, as detailed above, must always depend more or less on the situation of the land, the elements contained in the soil, and something on the season. For example: if the land be within reach of sea-breezes, which for centuries have been supplying it with soda, an application of nitrate of soda would not benefit it; nor would nitrate of potash, a soil already containing a sufficiency of potash. It would be the same with lime, plaster, &c., &c.; so that in making experiments, all these things must be considered. Still, we would not advise the farmer at all times to be at the expense of an analysis of his soil, to see what elements it contained, but would advise him to make a few cheap experiments on a small scale, and if these proved successful, then enlarge them. This would cost him less than a good analysis, and be more certain and satisfactory, as there will be attendant circumstances in all experiments, over which the chemist can have no control, and for which he cannot always account.

## DEGENERACY OF ANIMALS BY A CHANGE OF CLIMATE.

The Maine Farmer says, "The principle seems now to be very generally recognized, that most cattle degenerate with a change of climate." We cannot confess to any such general recognition, and must add, that a change of climate may as often be the means of an improvement in cattle, as a degeneracy in them; for these matters depend entirely on what they are, where taken, and how treated in their new home. We think the Devons have not degenerated in New England, when proper attention has been paid to their breeding, and we know that they have increased in size when taken to the rich pastures of the west. Durhams and Herefords would be likely to degenerate in size in the extreme Northern States, especially on the short pastures of the mountains; but they hold their own in the Middle and Western States. The Norman horse has lost in size in Canada; yet it is believed that he has gained in constitution, speed and endurance. The blood horse brought from England has not deteriorated here, and the Arabian has gained in size. Sheep also hold their own remarkably well in America, especially the Merinos of Spain, and the Southdowns of England. Does the editor expect his fine Cotswold buck, just received from Mr. Sotham, to degenerate? We should be apprehensive in the colder climate of Maine that he might some in size; not so, however, in Ohio, Kentucky, and any other states in the same latitude, with good pastures.

"Almost every county" in England is very far, at present, from having its "peculiar stock." On the contrary, we should think that full one-third of them have as great a mixture as can be found in any county in the United States. The imported cattle, such as the Durhams, Herefords, and Devons, are rapidly and widely spreading in Great Britain and Ireland; and this they are doing without degeneracy, wherever good pasture is to be obtained, and proper attention is paid to them. They would not answer at all on the bleak mountains of Wales and Scotland, nor in the bogs of Ireland; for nothing can live there, save the hardy dwarf natives. But these *improve*, and very rapidly too, in a change of climate, when brought down to the rich lowland pastures; and it is quite a system with the graziers in Great Britain to thus fit these hardy animals for the London market.

## CURE FOR FISTULA IN HORSES.

Mr. Harmon, in the Genesee Farmer, attests to the efficacy of the following singular method of curing the fistula:

"Procure a large warty toad, and having a thick glove or mitten on the hand, take up the toad and hold his back on the fistula for one or two minutes; take it off a short time, then put it on again, and rub its back slightly over the affected part, and continue to rub it thus for about an hour, by which time the toad will be dead, and should be buried. The horse will be rather uneasy at first, but after a few minutes he will stand quietly. Care should be taken not to hold your head too near or over the place of application, as the fumes are somewhat sickening. A milky fluid, said to be poisonous, exudes from the warts on the back of the toad, which is supposed to give efficacy to the remedy.

"The sore will discharge for three or four weeks after the operation, when the pus will come out and the place speedily heal. Very bad fistulas, of long standing, may require a second application, but in all ordinary cases one will prove sufficient."

A friend at our elbow says, put a seton in the fistula, at the lower part of it. This will discharge the *pus*. Then inject soap suds, made from fine soap (Castile is the best), frequently for one day. Next inject a weak solution of oil of vitriol two, or perhaps three times a day, for one or two days. After this, wash clean with soap suds. In a short while the fistula will be well. Poll-evil may be cured in the same way.

## GARDEN vs. FIELD BEANS.

We can well remember when the field bean was universally used as a crop for harvesting dry, the garden bean being considered unsuitable for this purpose. The practice of late years has made serious inroads on this opinion; and where this has been long tried, it is a common observation, even with uneducated consumers, that garden beans require much less pork to give equal body and flavor to them than is necessary with the field bean.

Science comes in to verify and explain this opinion; as it has been found on analysis, that the kidney contains 23.6 per cent. of legumin, albumen, &c., while the field bean contains but 11.7 per cent., a difference in favor of the former of more than 100 per cent., which, however, is lessened by greater proportions of some of the nutritious principles of the latter. The legumin, albumen, &c., is nearly analogous to the nutritious principles contained in meat, and hence the correct estimate placed upon the superior value of the kidney-bean for edible purposes. It may be added that, on *strong soils*, the kidney-bean is equally wholesome, and a much more prolific bearer than the field bean; which is all that is necessary to be known, to ensure for it a substitution in all cases for the latter, *by all such as read agricultural papers*, or who take the least interest in the study of the why and wherefore of the farmer's profession.

## PEDIGREES OF MR. JARVIS' SHEEP.

*Cortland Village, Dec.* 6, 1844.

In my article in relation to the pedigrees of my Merino sheep, in your December No., allusion is made to the pedigrees of Hon. William Jarvis' sheep, from which mine are partially descended. A writer in the Agriculturist having ventured the conjecture that all of Mr. Jarvis' Merinos have received a Saxon cross, I forwarded to the latter the following inquiry:—"Have you a flock of Merinos which you *know* to be the pure blooded descendants of your early importations?" I subjoin his answer.

Henry S. Randall.

*Dear Sir*,—In May, 1826, I purchased 52 or 53 at the sale in Brighton, Mass., of the large importation of Saxony sheep by Messrs. Searle of Boston; and the following autumn I selected and separated one hundred Merino ewes from my flock, and the rest I crossed with Saxony bucks. Those hundred Merinos and their descendants I have always been careful to keep by themselves, both summer and winter, and have been very particular in the choice of pure blood Merino bucks to put to them for breeding. The pure blood Merinos I kept marked with my old Merino ear mark, a half penny (or notch) under each ear: the progeny of those crossed between Merino and Saxony, with two half pennies under the right ear; and the full blooded Saxony with two half pennies under each ear.

In 1831 or 1832, finding that the Saxony crosses were reduced in weight of fleece from four pounds, which was about the average of my full blood Merino flock, to two pounds ten ounces, or two pounds twelve ounces, per fleece, upon an average, I took out all the remaining old Merino ewes, and put them with the descendants of the one hundred formerly reserved pure bloods. I have since bred all the Merino ewes with Merino bucks; and the cross blood ewes with cross blood bucks, selecting those with the heaviest fleeces; and full blooded Saxony ewes with full blooded Saxony bucks. I have been very particular to keep the three kinds of ewes apart, winter and summer. This I have been easily able to do, as I have ten sheep yards, each connected with a shed, and well separated with a good fence, and water in each;—and fifteen pastures, all well walled or fenced. I particularly employ one man about my sheep, and constantly give the necessary directions regarding them, which I personally see are faithfully executed. Usually in March or April, I myself select from the preceding spring lambs the buck lambs I intend for stock bucks. The flocks are separately washed, and separately sheared; and during the shearing process the lambs are ear-marked and tar-marked; and the old sheep are tar-marked as fast as sheared. I have been thus minute, to satisfy you of the confidence and safety with which I can speak of the blood of my sheep.

My flock consists of about a thousand sheep of all kinds, of which there are one hundred and sixty Merinos, the pure blooded descendants of those I purchased in Spain in 1809 and '10, and exported from Lisbon; about one hundred full blood Saxons; and the remainder are crossed between Saxony and Merino. The fleeces of the latter, from the attention I have paid to the selection of bucks (as before mentioned), are much heavier than in 1832. The average of the three kinds, taken together, is now 3lbs. 2oz., to 3lbs. 4oz., per head.

William Jarvis.

*Weathersfield, Nov.* 1, 1844.

## AGRICULTURAL SHOW IN MISSISSIPPI.

On Friday, the 25th ult., our fall show came off. The exhibition was a good and interesting one—the attendance, I regret to say, was very poor—the political excitement being so great that nothing else was thought of. So much was this the case, that on learning that a Whig pole was to be raised in Natchez, on the following day, which time being appointed for the trial of implements, the President postponed the trial until that day week.

*Show of Stock, Vegetables, &c.*—The show of stock was very fair; in hogs particularly good. In-doors, the ladies carried the palm—sweetmeats, jellies, cordials, &c., of the highest excellence; most beautiful specimens of needlework, knitting, netting, &c.; warm, *comfortable*, home-made *comforts* for the negroes; quilts, bundles of home-made socks, &c., &c., gave ample proof that in taste, skill, and industry, the ladies of Adams, and the adjoining counties, are unsurpassable. The vegetables and flowers were excellent; fine specimens of wines; samples of leather tanned on plantation, good merchantable leather; with many other things which I cannot now specify.

*Trial of Plows.*—On the following Saturday we had but a slim attendance, the same cause still operating to prevent an interest being felt in any other topic. A few experienced planters, zealous for improvement, were there. The plows attracted the most attention; and of those, Ruggles, Nourse, and Mason's cast all the others in the shade. Every one present acknowledged their superiority over any plow they had used, and several expressed, in my hearing, a determination to procure a supply. After trying all the sizes which you sent me, the opinion of the

committee was, that the slight apparent difference of draught in favor of the smallest size, does not, by any means, compensate for the very great difference in the amount of work done by the *Eagle* plow. The clevis on the Eagle plow sent by you, is a decided improvement on that of the one I purchased in Natchez, which is very defective.

We have another trial of implements, to take place probably in April or last of March, when we feel confident of seeing a still greater number here; and when those very excellent plows shall have a farther trial. I should like to see a large sized subsoil plow here at that time—the one you sent does good work for the draught required, two small horses taking it along, at a depth of six inches, with great ease. We are very willing to put *four* stout mules to a good plow. *Subsoiling* is attracting considerable attention; our best planters will, ere long, consider it an indispensable part of good farming.

*Cost of Corn Sheller.*—What is the cost of Smith's power corn sheller and separater, capable of getting out say even 100 bushels of ears per hour. (*a*) I wish he would send one here.

*Degeneracy of Wool.*—Your correspondent, R. L. Allen, in his excellent article on wool growing, *must* take a fling at the unfortunate "climate of the south." (*b*) Will he inform us how long a time elapses before the *wool* of the negro straightens out in the cold climate of the north? And how long we, of the "European races," may calculate upon being able to use a comb and brush? The extra degree of heat the sheep has to undergo here, is a mere nothing to the difference between the degrees of heat and cold he has to encounter with you. The Tennessee Agriculturist is involving itself in a fine web of absurdity on this same subject. I will disentangle all of you, one of these days.

The results of all my experiments thus far, go to prove that you are right in warning your readers to be on their guard with chemical solutions for seeds. Until I try farther, I would not wish to enter into any particulars.

THOMAS AFFLECK.

*Ingleside, Adams Co., Miss., Nov.* 26, 1844.

(*a*) It is $50, delivered in this city, or $40 at the manufacturers.

(*b*) Are you not mistaken? He speaks of wool as deteriorating in the "equatorial regions" only, as we understand him; and we presume that he would take those portions of the equator sufficiently elevated to ensure a temperate climate and good pasturage, an exception to his remarks. We do not think he meant to include any part of the United States in his observations. However, he will probably explain for himself when this meets his eye. We shall be glad to see Mr. Affleck's "disentanglement" of all of us; but if he means to include the editor of this paper as entertaining the idea of wool degenerating in any part of the southern United States, he will find, by looking over our writings, that we have ever expressed the opinion that it grows *softer* and *finer* there, on the same kinds of sheep, than here at the north, provided they get anything like fair attention. To keep sheep on the lowlands of the south in winter, and drive them in the spring to the mountains not over 100 to 300 miles distant, will be quite common we hope a quarter of a century hence.

## CUTTING TIMBER AND SETTING POSTS.

CAN any one inform me what is the best season for cutting timber and the best manner of setting posts.(*a*) Nine-tenths of all the published directions for cutting timber, claim that the best season for ensuring durability, is to cut in February; while the other tenth claim, that by cutting in June or July and immediately peeling off the bark, timber will not *powder-post*, and will last three or four times as long as that cut in winter. Is not the proper time somewhat later, and truly indicated by the perfection of the leaf, say from August to first of November? Analogy would lead us to suppose this, and some experiments go strongly to confirm it. Experiments in summer cutting have been most conclusive in favor of its superiority over winter cutting. Can it be that truth lies with the *few*, and are the *many* mistaken? Such has not unfrequently been the case. Can any of the numerous readers of the Agriculturist give us facts on the subject? A series of experiments in cutting every week in the year, for a series of years, the temperature and peculiarity of season being noted at each time—with all descriptions of timber—young and matured—peeled and unpeeled—housed and unhoused—and applied to all the different purposes for which timber is used, would result in vast advantages to the community. (*b*)

I wish to re-set a number of fence posts the ensuing spring. What durability may I look for from white-oak, grown in the original forests of New York, which have been in use eight or nine years? Is there any difference in setting the top or bottom end in the ground? The soil in which they are to be set is a strong clay; can any advantage be derived from placing a quantity of leached ashes around them at the surface, and how many are required for each post of six or seven inches square? (*c*)

QUERICUS.

(*a*) The best method of setting posts which we have seen practised, is on the farm of Mr. Gibbons of New Jersey. A hole is dug two and a half feet deep, and of a circumference of four inches wider than the circle of the post. Small cobble stones are laid four inches deep on the bottom of this for the post to rest on; the hole is then filled up all round the post with the same kind of stone. Thus planted, it does not come in contact with the ground at all, and will stand sound for many years.

(*b*) It is pretty certain that timber must throw out its sap soon after being cut, otherwise it undergoes fermentation, which causes it rapidly to decay. Now if it be cut and peeled during warm weather, it has a much better opportunity to get rid of its sap than when cut in winter and left to dry as it best may with the bark on. If these observations be correct, any time sap is running, would be the best to cut timber; and as soon as peeled, it should be hauled out of the woods and exposed to the sun to dry. All experiments which we have ever heard of, go to show that timber cut in the spring and summer lasts longer than that cut in the winter.

(*c*) Setting posts with the little end down it is said will make them last much longer than with the butt end down; but having no experience on the subject, we cannot answer whether this is really so. Of the benefit of leached ashes we know nothing. Charring the post before setting adds to its duration.

# Agriculture in Scotland.—No. 3.

*Ayrshire Cattle.*—During the last two weeks I have been in a part of Scotland famed for its spirit of agricultural improvement, and have been there under circumstances most favorable for the acquirement of information. I allude to the counties of Ayr and Renfrew, the former of which is especially celebrated. Among the many objects of interest, were the Ayrshire cattle. My observation of these was of necessity hasty, and my information picked up in fragments from different individuals; yet there may be something new and calculated to be of benefit where this stock is not generally known.

I found the Ayrshires generally the only breed in that part of Scotland; of course there are mixtures and crosses, but they very greatly prevail. The largest number of cows upon any of the farms which I saw, were at Mr. John Tennant's, 6 miles from Ayr. He had about 90; some 30 of them, however, were fattening. Mr. Alexander, of Southbarr, has a fine dairy of about 40, at Wellwood, near Muirbirk. Mr. Fleming's, of Barrochan, is also worthy of notice. I was particularly pleased with that of Mr. Burnett, of Gadgirth, where every particular as to each churning is entered in a book kept for the purpose, so that a glance tells the quantity of cream or milk used, the weight of butter obtained, the time occupied in churning, and the temperature.

*Weight of the Ayrshires.*—On this point I could only obtain an approximation to a general rule. The average weight of Mr. Tennant's cows, as he informed me, is from 36 to 43 stone (about 500 to 600 lbs.), dead weight. I found that the animals raised expressly for fattening, are almost invariably a *cross* with the Short-Horns. Every large farm that I visited, had a full blood Short-Horn bull. *The improvement in shape and size from this cross is very great. They also mature much earlier.* Mr. Tennant turns his off at two years old past, and says that they then weigh from 50 to 60 stone, or from 700 to 850 lbs. Two very important points are thus attained—increase of size with a gain of from 6 to 12 months in the time of maturing for market. On some farms the Angus, or Polled breed seemed to be favorites for fattening; and on others, the small West Highlanders are bought in the autumn, and sold in the succeeding autumn, after a year's keeping on the rich lowland pastures.

*Milking qualities.*—The Ayrshires, as you are probably aware, stand very high in this respect. Though they are small in size, their milk is abundant in quantity and remarkable for richness. Mr. Tennant stated that in the height of the season, his cows yielded about 10 Scotch pints, or 30 English, per day, and that they averaged not far from 170 lbs. of butter per annum. Mr. Fleming, however, told me that on the best lowland pasture, a good cow yields 2,000 Scotch pints, 8 of which are considered equal to a pound of butter. This would be 240 lbs. per annum; on poorer or high land he would not expect more than 1,500 pints, or 180 lbs. butter, which would nearly agree with Mr. Tennant's statement. The Scotch pint is 3 English pints—350 to 400 lbs. of whole milk cheese is mentioned as a fair average. I inquired particularly as to the milking properties of the cross with the Short-Horns. Mr. Tennant, Mr. Burnett, and many others said that the milking qualities were deteriorated; that now and then a good milker might be found, but it was an exception. Mr. Burnett said that milk formed no part of their calculation in making the cross; it was simply for the purpose of improvement in size and aptness to fatten. On the other hand, I learned from Mr. Fleming, of Barrochan, and his overseer, both excellent authorities, that the cross with the Short-Horn *made capital milkers.* These conflicting opinions throw a shade of doubt upon the subject, which I am as yet unable to dispel.(*a*) If the milking qualities of the Ayrshire can be united with the form and fattening qualities of the Short-Horn, it becomes a matter of much importance. I should think it at least worthy of a fair and impartial trial. In Mr. Fleming's dairy were two or three Alderneys; these, the overseer informed me, were to give additional richness to the product of the whole.

*Sheep.*—I saw but one flock of Southdown sheep, which was upon the farm of Mr. Campbell, of Craigie. He said, and all whom I questioned seemed to agree with him, that in many points they are superior to the Cheviots, yet their introduction seems to be by no means extensive. They are generally considered as hardy as the Cheviots, and the mutton is unequalled. Upon the farm of Mr. Alexander, of Southbarr, I saw a very fine cross between a Southdown buck and Cheviot ewes. He is much pleased with it, and will have a large number of lambs next season. Small flocks of the Leicesters are kept upon many farms, but the Black-faced Highlanders are most abundant; they are bought for fatting like the West Highland cattle.

*The Clydesdale Horse* I found the universal favorite for farm purposes. Some noble specimens were exhibited at Glasgow, at the show of the Highland Society. Some of the farmers, however, think that they are beginning to degenerate; that they are, as they say, becoming too *leggy.* Mr. Tennant last year imported a celebrated Flemish stallion, with a view of correcting this defect. This is certainly a noble animal, and combines, in a degree that I think can hardly be surpassed, compactness with great muscular power. It is a prevalent idea that the original Clydesdale horse sprang from a Flemish stallion, and this, therefore, is going back to the parent stock. For our farming operations, as at present conducted, lighter and more active horses, on all save the stiffest soils, would be equally efficient and more economical; but when we come to use the clod-crusher, the grubber, the subsoil plough, &c., stirring the soil as it is done in some parts of this country, to the depth of 22 inches, we too shall want animals of great size and power, unless we can contrive implements to effect the same end without requiring such an expenditure of strength. JOHN P. NORTON.

*Edinburgh, Oct. 25th,* 1844.

(*a*) Our correspondent, though a young gentleman of fine attainments, has not yet had much opportunity of studying the science of breeding; we will, therefore, reconcile what seem to him "conflicting opinions." There are different tribes of Short-Horns or Durhams; some excel as milkers, others do not. Mr. Burnett states "that milk formed no part of their calculation in crossing with the Short-Horn;" he, undoubtedly, chose a bull without reference to the milking qualities of its tribe, and probably cross-

ed him with those Ayrshire cows which he had taken from his herd, principally on account of not excelling as milkers. Now, no reference to milking qualities being cared for, either in the dam or the sire, of course their produce could not be expected generally to prove good milkers, though it seems one would occasionally leak out. Mr. Fleming, on the contrary, either by accident or design, must have obtained a Short-Horn bull from a milking family, which he bred to his deep milking Ayrshire cows. Of course the progeny of this cross would be good milkers, as a general rule. It seems in both events, that *earlier maturity* was obtained, a matter of very great consideration to the breeder. If the farmer can get an animal which will be fully matured and fit for market at two and a half or three years old, how much more profitable would that be than to wait from *five* to *seven* years, as he is now obliged to do with the native cattle! But this subject was placed in such clear, forcible light, by a correspondent in our last volume, page 107, under the head of "English Method of Fattening Cattle," that it renders it unnecessary for us to dwell upon it any further at this time.

## CULTURE OF THE PEACH.

In reading a communication a few months since, of N. Longworth to the Cincinnati Horticultural Society, I was surprised to find that this eminent cultivator had imbibed several material errors in relation to the peach and its cultivation. He remarks, "that the pit of a seedling peach will produce its kind, is well known," &c.

There certainly can be no distinction intended here between a seedling or natural, and an inoculated peach tree. All our varieties of peaches are seedlings; there can be no other way of originating new varieties of any fruit whatever. Budded or grafted trees bear fruit precisely the same as that of the tree from which the bud or graft was taken; suckers from the root will produce fruit similar to that of the stock from whose root they spring. Consequently, all new varieties must spring from seed, and the above assertion cannot be correct, that seedlings will produce their kind, because, if such were the case, no new varieties could arise.

It is, as Professor Lindley truly remarks, an axiom in vegetable physiology, that seeds reproduce the *species* only, while buds will multiply the *variety*. That the pit of the Oldmixon peach will reproduce a peach is certain; but it is equally uncertain that it will produce a tree, whose fruit can claim the most distant affinity to the Oldmixon variety. Although there is always this uncertainty in perpetuating a variety, and it is the general nature of a seed to perpetuate the species only to which it belongs; yet there is always a visible tendency in it to produce a seedling more like its parent, than any other variety of the species. For example, suppose the pit was sown of an Oldmixon peach, if this peach stood isolated where the stigma of the flower that produced the pit could not have been impregnated with the pollen of other varieties, it would be more likely to produce a fruit, fine, large, and sweet, like its parent, than one that was small and worthless. Yet there would be no certainty of obtaining a fruit resembling the Oldmixon, although it might be equal, if not superior, to it in size and flavor.

The remarks of N. Longworth quoted above, have, therefore, a tendency to mislead the tyro in horticulture, although such a result is undoubtedly very far from his wish or intention. I speak only of the present result of planting pits of seedling fruit. I have no doubt that by judicious experiments upon several generations of trees, one might be obtained whose fruit would produce a tree that would bear fruit very nearly, if not precisely similar to its parent. It is on the same principle that gardeners have obtained the seed of many fine varieties of vegetables, which, although *varieties*, will produce the same. Let a person plant the pit of the Oldmixon peach, and inoculate the tree that springs from it with the Oldmixon bud, let him plant the pit borne by this inoculation, and bud the tree again with the Oldmixon in a similar manner, and repeat this process for several generations, the result, I think, would be, that a peach would be obtained whose pit would uniformly produce the Oldmixon variety.

The cause of this result, I think, is founded upon true physiological principles. If the fruit of a tree produced from the pit of a budded peach partakes of the nature of the fruit, both of the stock and of the bud—and I have very little doubt that it does—then this "breeding in and in" must gradually assimilate the natures of the bud and of the stock, until the fruit of the one is very nearly, if not quite, the same as that of the other. I hope some amateur who has leisure and taste in these things, will try the experiment, and inform the horticultural public of the result.

S. B. P.

*Commercial Garden and Nursery, Flushing, L. I.*

## BLACK-SEA WHEAT.

When recently in New York, I saw at the rooms of the American Institute a great variety of samples of wheat from Mr. Harmon and others. We have in this vicinity a variety of wheat called the Black-sea, which has done remarkably well here since it has got into general use. It has thus far resisted the attack of the fly and rust, the two great hindrances of wheat-growing in this section. Previous to the last year this country has had to depend upon the west for its flour; now there is a surplus. The best kind of wheat for seed can be had here for $1 per bushel. If a good chance offers I will send you a sample of the Black-sea Wheat, and one for the rooms of the Institute, if you will take the trouble to hand it in there.

Samuel Everts.

*Cornwall, Vt., Dec. 9th*, 1844.

We shall be pleased to receive the samples of wheat spoken of.

## COONS, GREAT RAT KILLERS.

I could recommend nothing better in the place of Mr. Affleck's cats, than a good lot of pet coons. They are much preferable to cats, to kill, eat, and drive away rats. They can stand any climate without being subject to convulsions. Coons are the best remedy to keep rats away of anything I have yet heard of. I will insure Mr. Affleck after he has a coon or two on his place a few days, there will

not be a rat about the *diggins*. I can say this by experience, for we were nearly devoured by rats until we got coons. I can now say there is not a rat on the place. If Mr. A. should want any of the tribe, I could spare a pair, as I have a dozen on hand.

R. H. HENDRICKSON.

*Middletown, Ohio, 18th Nov.*, 1844.

## Horticulture in France.

A VOYAGE to Europe, and a few months passed there very pleasantly, forms an epoch in any man's life, sufficiently important to be remembered, if only from the fact of crossing and re-crossing the Atlantic. How much more agreeable then will be the reminiscences, if, in addition to this, our tour has been undertaken for the double purpose of gaining information, and ascertaining from personal observation what our neighbors are doing in that branch of science most interesting to ourselves, and very generally so to our fellow men! With us, the pleasures of gardening, and of everything else connected therewith, are regarded as first principles, influencing our thoughts, and giving a direction to all our acts. Three years ago, we scarcely knew the name of a dozen plants either ornamental or useful, and had not in our possession a single specimen of vegetable life. A beautiful rose-bush caught our eye one day while passing through Fulton market, admiration induced us to purchase it, and from this simple circumstance has originated the large and magnificent collection of exotics now under our care, with the huge conservatory and other accompanying plant-houses around the gardens at Carolina Hall. After visiting several of the most important public and private establishments in and near New York and Philadelphia, and obtaining from the former everything worthy of notice, we found there was still wanting a multitude of rare and elegant plants, only to be had by making the importation from foreign countries, or, by a personal visit to kill two birds with one stone, by seeing for ourselves, and then selecting whatever merited attention for its beauty and scarcity combined. We were not long in deciding on the latter course, and sailed for Liverpool in April last, with hopes and expectations which have been more than fulfilled.

With a partial promise made at the moment of starting, that we would communicate our views on horticultural subjects, formed from our own observation on the condition of things abroad, we have at no previous time been able to comply. Constant change of place and scene, with the necessarily attendant excitement thereby occasioned, has operated as a preventive; but now that we have a little more leisure, something may be said as to the state of horticulture in England, France and Belgium, and the contrast made apparent, between *our* operations and those of our friends across the water.

An American scarcely sets his foot in France, before he is struck with the different appearance of almost everything he has been accustomed to see at home. The novelty of his position, particularly if it be the first time that he has gone abroad, makes him feel somewhat singular; and except when he is asleep, his faculties are roused to their utmost limit of comprehensiveness by the panorama around him, of the busy scenes of human life. The language, the manners, the dress, and the very looks of his fellow men, all remind him strongly that he is a stranger in a strange land. If he is going to Paris, (and who goes to France without going there?) he is off at once, satisfied that in and about that magnificent city, he can avail himself of sight-seeing to his heart's content. For our own part, though we saw and wondered as much as any one, yet our chief interest was directed to the numerous horticultural establishments, their size, arrangement, extent of collection, and general keeping.

One of the first visited was that of the Messieurs Cels Frères, pépiniéristes à Montrouge, chaussée du Maine, 77. These gentlemen have a very extensive nursery, tolerably well laid out, and stocked with a good assortment of hardy plants. They cultivate the rose largely, and have raised some very beautiful varieties of this lovely flower. Their chief attention is, however, bestowed upon their collection of *stove* and *greenhouse* exotics, than which there is not a better that we know of in the kingdom. For the growth of these, they have numerous houses, each one filled with its appropriate inhabitants, all looking remarkably healthy, and very neatly arranged. It is to the brothers Cels, that the Horticultural Society of Paris are chiefly indebted for a large portion of the display made at their exhibitions, it being not at all an uncommon occurrence for them to furnish from 600 to 700 specimens of very rare and splendid plants. It is their pride to be among the most distinguished horticulturists of the country; nor have they spared any expense in enriching their collection by constant additions of everything choice and remarkable, either for beauty or singularity. No one can enter their houses without being immediately struck with the large number of palms, rhododendrons, azaleas, ericas, orchidaceæ, coniferæ, and cacti. Of these last, they probably have the richest collection to be found in France, and many of their specimens are very rare and costly. Of these we noticed Echinocactus electracanthus, acuatus, macrodiscus, cornigerus, piliferus, and aulacogonus; Echinopsis multiplex and zuccarini, and several new species of melocactus from Brazil. It is here we saw the beautiful Mammillaria eliphantideus, rarely seen, and well worthy a place in every select collection of cacti. Among the immense number of greenhouse and stove plants, we noticed several of great beauty and rarity; these were Azalea crassifolia, Boronia anemonœfolia, Chowzema oppositifolium, Franciscea hydrangæformis, a new yellow Rondeletia, Bilberghia zonata, with marbled leaves, the Ilex excelsa, singular foliage, Dacridium elatum and cupressinum, and the Phyllocladus trachymenoides. Their specimens of Araucaria imbricata are magnificent, also Altingia excelsa, and Cedrus deodara, all of them being over 12 feet in height. Of the remarkable orchideæ tribe, they possess a fine assortment. To us these singular plants always afford much gratification, not alone because they are so, but from their splendid flowers, many of which are exceedingly fragrant. Of those in bloom we observed the curious Bressia cawanii, Phaius bicolor, Cyrtochilum maculatum, Oncidium carthaginense and ampliatum, Trichopilia tortilis, and Zygopetalon maxillare, of which last *we have a specimen now in bloom*, besides many others not yet in flower, being probably the most extensive collection to be found in

the United States. We mention this because it is our wish to have our friends see them, assured that when they shall become better acquainted with their character, many will be induced to obtain and grow a few plants.

The nursery of the brothers Cels is among the largest in the vicinity of the capital, and certainly one of the best. In some respects they have a rival in Monsieur Paillet of the rue d'Austerlitz, whose collection is very good, kept in excellent order, and embraces some very fine things. This gentleman has a most excellent assortment of *roses grown in pots*, a mode that has of late called forth much attention, and to be recommended for adoption to a certain extent in all horticultural establishments. The principal *rose* growers about Paris are M. M. Laffay, à Bellevue, mont des Capucins; Lévéque Réné, boulevard d'Hopital 46; Gauthier, quai d'Orsay, avenue de Suffren; Margottin, rue des Trois Ormes, No. 5, boulevard de la Gare; Roblin, rue Notre-Dame des Champs, 47, and Verdier.

The Roses most in demand during the summer of 1844, and which will be scarce for some time to come, are—La Reine, Iolande d'Arragon, Comte d'Eau, Pauline Levaniem, Thiabault, and Dr. Marjolin, all *Hybrid Perpetuals*. *Noisette*, Cloth of Gold. *Bourbons*—Comte de Rambuteau, Dumont du Coursit, Imperatrice Josephine, Madame Souchét, Princesse Clementine, Souchét, and *Souvenir de la Malmaison*, which last with *La Reine*, are two of the most elegant Roses ever grown. W. W. V.

*Horticultural Gardens,*
*Flushing, L. I. Dec.* 15, 1844.

P. S. Persons who are desirous of procuring any or all of the above splendid roses, can be furnished with fine healthy young plants in May or June, at $2 and $3 each. Orders will be attended to if addressed (post paid) to *Mr. M. I. Howard, Horticultural Gardens, Flushing, L. I.*, stating where and how they shall be sent. From unknown correspondents, a remittance or satisfactory reference is required.

The proprietor will at all times be pleased to receive the visits of his friends, and others who are interested in horticultural affairs.

## FARM BUILDINGS.

According to my promise, I send you a plan and description of the farm buildings I have been erecting on my place, together with the barn, and its sheds recently completed. I do not say that these buildings are *perfect* in this plan, but for the accommodation of the farm on which they are located they are as convenient as I could wish. The barn and its appendages have been in use about eight years; the other buildings two years, so that I have had a pretty good opportunity of testing them.

The house is plain and cheap, yet withal presenting a pretty and rural appearance; and when its fruit and ornamental trees and shrubbery are grown, it will wear an aspect of repose, and have a home-like appearance—the great requisites of a farm dwelling. For a tenant house on a large estate, or a moderate farmer, it is equal to all useful purposes; and although the plan might be changed as fancy may suggest, more conveniences than this combines will hardly be found in the same compass.

*Black Rock, Dec.* 1844. L. F. Allen.

*Explanation of Figure* 2.

A, dwelling-house, of which there will be a complete description, together with explanatory cuts in the February number.

B, wash-room.

C, wood-house.

D, work-shop.

E, wagon, cart, and sleigh-house.

F, horse-barn.

G, stables for bull, oxen, or other animals.

H, barn with stables, threshing-floor, hay and grain lofts, &c., &c.

—

*Explanation of Figure* 3.

A, dwelling-house 34 feet front by 38 rear; front part 34 by 22; one and a half stories high. Leanto, 16 feet wide, one story high.

1, piazza, from which the door opens into an entry in the centre of the house 8 by 4.

2, sitting or eating-room 18 by 15.

3, parlor 22 by 15.

4, bed-room 12 by 9.

5, buttery and kitchen-closet 12 by 7.

6, kitchen 22 by 16, with fire-place, oven, sink, pump from cistern below, &c.; in the rooms 2 and 3, are fire places, and beyond them are 3 closets which open respectively into 2, 3, and 6, for their separate accommodation; at the right of these closets is the chamber stair-way at one end, and the cellar stair-way at the other end.

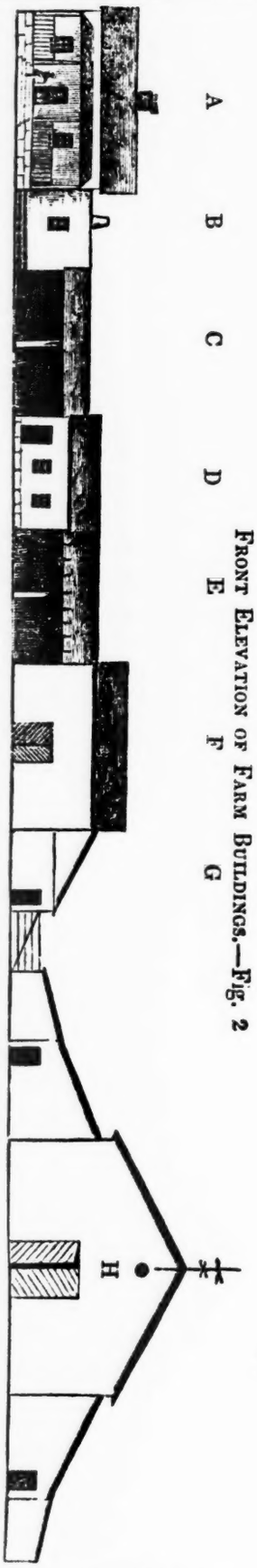
B, at 10, wash-room 22 by 16 feet, with boiler. The dot in front of this is a well.

C, at 11, woodhouse 42 by 14 ft, the roof on a level with wash-room with the same pitch as the kitchen.

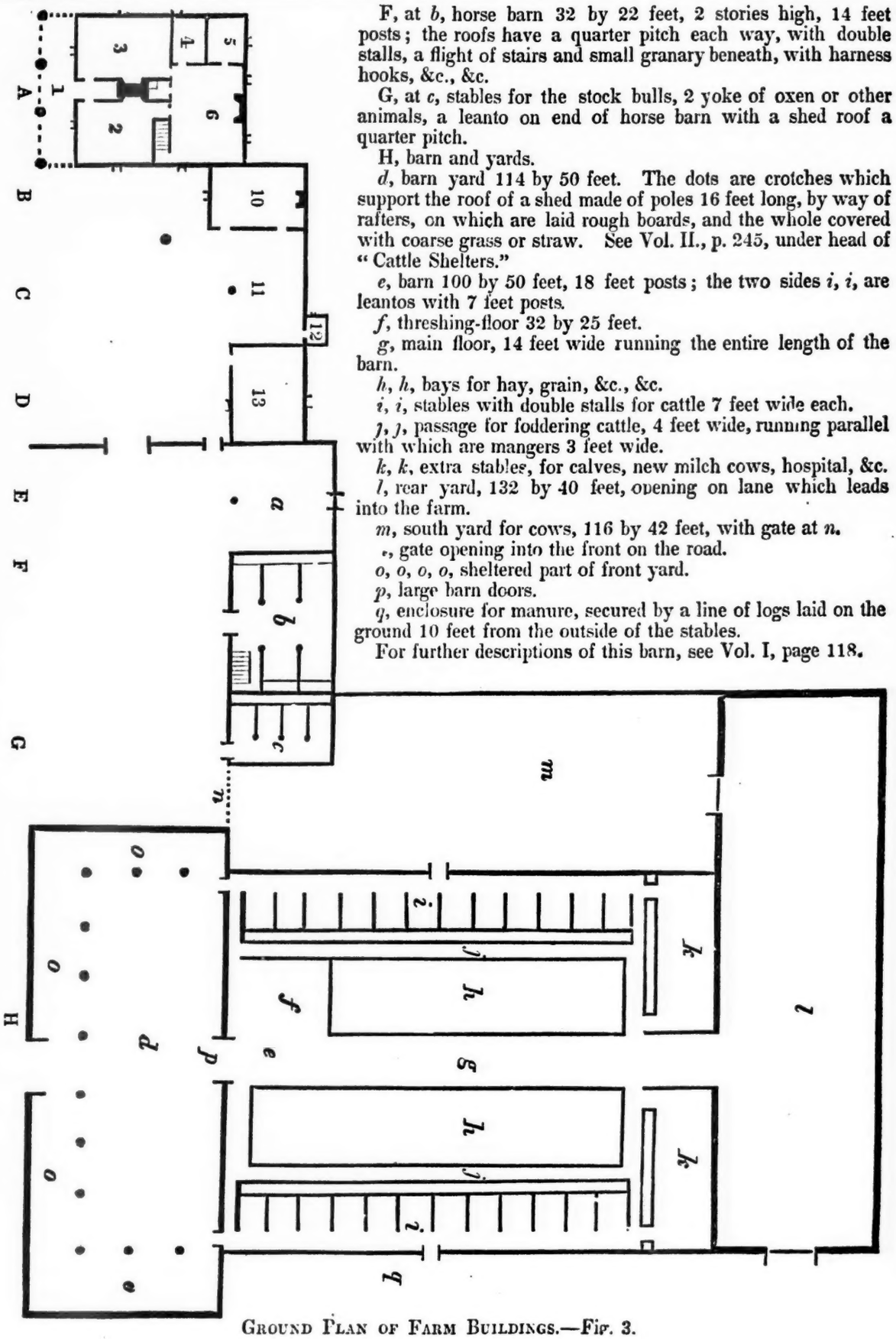
12, privy in the rear.

D, at 13, workshop 22 by 14 feet, one and a half stories high; the roof being raised above the wood-house.

E, at *a*, wagon, cart and sleigh-house 36 by 22 feet; one and a half stories high, with poultry-house over head. This, like the wash-room, wood-house, and workshop, has a shed roof declining to the rear.




Front Elevation of Farm Buildings.—Fig. 2




F, at *b*, horse barn 32 by 22 feet, 2 stories high, 14 feet posts; the roofs have a quarter pitch each way, with double stalls, a flight of stairs and small granary beneath, with harness hooks, &c., &c.

G, at *c*, stables for the stock bulls, 2 yoke of oxen or other animals, a leanto on end of horse barn with a shed roof a quarter pitch.

H, barn and yards.

*d*, barn yard 114 by 50 feet. The dots are crotches which support the roof of a shed made of poles 16 feet long, by way of rafters, on which are laid rough boards, and the whole covered with coarse grass or straw. See Vol. II., p. 245, under head of "Cattle Shelters."

*e*, barn 100 by 50 feet, 18 feet posts; the two sides *i*, *i*, are leantos with 7 feet posts.

*f*, threshing-floor 32 by 25 feet.

*g*, main floor, 14 feet wide running the entire length of the barn.

*h*, *h*, bays for hay, grain, &c., &c.

*i*, *i*, stables with double stalls for cattle 7 feet wide each.

*j*, *j*, passage for foddering cattle, 4 feet wide, running parallel with which are mangers 3 feet wide.

*k*, *k*, extra stables, for calves, new milch cows, hospital, &c.

*l*, rear yard, 132 by 40 feet, opening on lane which leads into the farm.

*m*, south yard for cows, 116 by 42 feet, with gate at *n*.

*n*, gate opening into the front on the road.

*o*, *o*, *o*, *o*, sheltered part of front yard.

*p*, large barn doors.

*q*, enclosure for manure, secured by a line of logs laid on the ground 10 feet from the outside of the stables.

For further descriptions of this barn, see Vol. I, page 118.

GROUND PLAN OF FARM BUILDINGS.—FIG. 3.

The following sketches relative to the origin, nature, management and other circumstances connected with Merino sheep, are from the pen of one who was the son of a farmer, and educated as such. As he has travelled extensively in Spain and other parts of Europe, and writes from personal observation, and an intercourse with Spanish shepherds and flock masters, we think his articles will be found highly valuable to all engaged in the business of sheep husbandry, and bespeak for them an attentive perusal.

## SHEEP HUSBANDRY IN SPAIN.—No. 1.

THE Sheep, from remote antiquity, has continued to contribute greatly to the wants and comforts of man; and, at the present time, is more extensively employed in the economy of the human race than any other animal. Although attempts have been made to trace the varieties constituting our domestic breeds to their original stock, it never has satisfactorily been done, and perhaps it is impossible ever to arrive at an accurate conclusion in regard to them. The Musmon of Pliny (*Ovis musmon*) at present found wild in the desert parts of the mountains in the south of Spain, Iviça, Corsica, Sardinia, and some other islands in the Mediterranean, as well as in European Turkey; the Asiatic Argali (*Ovis ammon*) which inhabits the more elevated tracts of Asia, Caucasus, and the plains of Siberia; and the Bearded Argali (*Ovis tragelaphus*) of the mountains of Northern Africa, claim to assist us in producing our present breeds, and have generally been considered as their most probable origin.

In Spain there are, at present, two domestic breeds of sheep, which differ widely from one another, both in their habits and in the properties of their wool. One kind has, for a long period, existed in the warmer parts of that country, and is known by their long, coarse, hairy wool; and the other, which migrates every spring from the plains and valleys of Andalusia, Estremadura, Murcia, Valencia, and Catalonia, to the cool mountains of Old Castile and Arragon, where they pass the summer, and return again in autumn to feed, during winter, on the warm plains below. The latter, which includes the pure Merino (*Ovis aries hispanica*), are distinguished from the common sheep, by a loose skin hanging from their necks, and in having wool on their foreheads and cheeks, and frequently down their legs nearly to their hoofs. The horns of the males are very large and ponderous, and are usually rolled laterally, one part over another. Their wool is long, fine, and soft, and is twisted into glossy, spiral ringlets; it naturally contains a large proportion of oil, to which dust and other impurities adhere, and give to the animals a dingy and unclean appearance, that conveys to the casual observer an idea of inferiority; but, on parting it, all doubts are immediately removed, when its unsullied purity and fineness are brought to view. There also exist, in Spain, several intermediate breeds, among which are the Pyrenean races, with remarkably fine wool, and somewhat resembling those on the South Downs of England. In general, they are polled; but some have horns, which turn behind the ears, and in the males, project forward half a circle. Their legs, which are short, are white or reddish; their faces speckled, and in some, a small tuft of wool grows on their foreheads. Their color varies from white to a reddish yellow, and in a few instances they are entirely black. There is also another race in Biscay, which have from four to six horns, but they are not of the fine-wooled variety.

As my remarks will be chiefly confined to the Merino breeds, it may not be uninteresting to offer a few suggestions relative to their origin and the fineness of their wool. "At a certain time," says Columella, who wrote on husbandry more than 1800 years ago, "when some wild fierce rams of a wonderful color, as other beasts, were brought from the neighboring parts of Africa, to the municipal city of Cadiz, by those who entertained the people with public games and shows, Marcus Columella, my uncle, a man of quick discerning genius, and a famous husbandman, having bought some of them, carried them to his own lands, and when they were tamed, admitted them to couple with covered sheep. These, at first, brought forth rough bristly lambs, but of the color of their sire; and afterwards they themselves, being put upon Tarentinian or Greek sheep, generated rams of a fine fleece. Moreover, whatever was afterwards conceived by them, resembled the color of the sire and grandsire, but the delicacy and softness of the dam." In this manner Columella said that any colors or outward appearance whatsoever, that was in beasts, did return with a mitigation of their fierceness and wildness, through the several degrees of their descendants; and in buying flocks, the following are the things, for the most part, which he thinks ought to be observed in common. "If the whiteness of the wool pleases you most, you shall always choose the whitest males; for, of a white male, there is often produced a dark tawny offspring; but that which is white is never generated by one that is red or black." The example of Columella, of importing African rams, was repeated by Don Pedro II. king of Arragon, in the early part of the XIIIth century, and afterwards by Cardinal Ximenes, prime minister of Spain, and to that epoch is to be ascribed the superiority of Merino wool over that of all other domestic breeds. With regard to the cause of this superiority, some impute it to the sheep passing their lives in the open air in a dry and equable climate; others to the nature of the soil and vegetation upon which they feed, and to their migrating semi-annually from one part of the country to another; and a third class to the peculiar manner of smearing their backs at a certain period, a process hereafter to be described; but it is most probable that they do not so much owe the fineness and quality of their wool to the reasons above assigned, as to the uniform, systematic and unceasing care with which they are managed through every stage of their existence, and the pure, unmixed and isolated condition in which each flock is kept from generation to generation. For it appears as a matter of certainty, that the sole design of removing these sheep from one district to another, is to feed; and it is equally certain that these journeys never would be undertaken, if a sufficiency of good pasturage could be found in one place during the year; and, besides, it is a noted fact, that there are stationary flocks in the plains of Estremadura, where frost is seldom seen, and about the mountains of Old Castile, where snow often falls in June, both of which produce wool of an equal degree of fineness to that of the itinerant flocks that change their quarters every six months. In has been asserted, and believed by some, although controverted by several well inform-

ed persons, that regions abounding in aromatic plants are more favorable to the health of sheep, and consequently to the fineness of their wool, than those entirely destitute of such plants. Two instances, well supported, will, perhaps, be sufficient to refute this opinion. The territory of Montaña, in Old Castile, is one of the most elevated tracts in Spain, where the neighboring mountains rise in the atmosphere to a line of perpetual snow. Its hills consist of sandstone, covered with a deep clayey soil; black marble marked with white and yellow veins; grey limestone, containing marine petrifactions, talc, gypsum, and numerous saline springs; and in the plains and valleys emery abounds, both occurring in large blocks and incorporated in the soil. The soils of the mountains and hills are noted as being of a similar composition with the rocks beneath them; and experience has taught the Spanish farmers, that the sod which covers the limestone districts is best adapted to the growth of wheat and maize; that the clayey soil lying upon the sandstone, is stiff and difficult to till; and that the intermediate soils, resting upon mixed formations, are not very productive without the application of manure. The hills and plains of this region, which are destitute of aromatic plants, afford the finest of pasturage to numerous herds of sheep, cows, and horses; the two latter of which, are fed on hay during the winter months—a very rare circumstance to occur in any part of Spain, or the south of Europe generally. The other instance referred to, is the territory adjacent to the town of Molina, in Arragon, which abounds in aromatic and odoriferous plants, and is celebrated for its good pasturage and fine flocks; yet their wool is of no better quality than that of the sheep of Montaña, where no aromatic plants are to be found. The hills and mountains about Molina are composed of red and grey sandstone, limestone, gypsum of various colors and stages of decomposition; dark and light-colored granite, intersected by numerous veins of lead, iron, and copper, the latter of which contains silver, sulphur, and arsenic; and all the surrounding country is rich in springs from which large quantities of salt are annually made. Without digressing further from the subject, it may not be improper to state, that the pastures of Spain are generally prolific in sweet grasses suitable for grazing, several of which are indigenous, and others have been introduced from northern Africa, the east, and from other parts of Europe.

That the quality of wool depends much upon climate, there can be no doubt; for it is a well established law, that the wool of sheep, in the torrid zone, degenerates into a species of hair; and in very cold, rigid ones, though fine near the roots, it becomes coarse towards the ends. Hence, it is only in temperate latitudes where wool approaches to a state of perfection; and its fineness in the Merinos, doubtless, is owing, in a great measure, to their being able to pass their lives in the open air, free from the extremes of heat, cold, and moisture, common to some countries, and where their unobstructed but less abundant perspiration is allowed to be swept away as fast as it flows. It is a remarkable fact, that all the sheep in Spain which constantly live in the open air, perpetuate their color, and other properties, to their progeny; and it is equally remarkable, that the swine of that country, which run wild in the woods, are invariably clothed in fine, curly, black hair; and it is proverbial that, "*Never did a Spanish hog's bristle pierce a shoe.*"

D. Jay Browne.

*New York, December 10th*, 1844.

## FARMING IN FLORIDA.

*The Worcester Plows.*—The plows you sent me have come to hand. With their appearance I was very much pleased, and with their performance *perfectly* satisfied. I tried them first when the ground was as dry as it could be from a drought of near *two* months, and immediately after a rain of twelve hours; in both instances the work was complete. The excellence of the operation was in proportion to the size of the plow. The plow No. 2 B, was drawn by two mules easily, and accomplished its work most effectually. I have a great desire to try the Eagle plow now, one size larger.

*Superior Healthiness of Corn Meal for Mules.*—The corn and cob crusher you sent me is exciting much attention. All the corn now used by stock on my plantation is first ground in this mill, and I find thereby not only a great saving in long forage, but that the health of the animals is greatly promoted. Formerly, my mules suffered much with the *colic*, and my usual loss has been from one to three every year from that disease; but since I have had the crusher (now near eight months), there has not been a single case of colic in a lot of twenty-four mules, fed three times per day on the ground food.

*Marl.*—Since reading Ruffin's Essay, I have discovered marl on my plantation, but have yet made no experiment with it, merely because it is inconvenient to get at it. The bed commences six feet below the surface, and continues without change twenty feet, as far as I have penetrated. It appears to be a mass or concretion of various minute shells. It effervesces rapidly in muriatic acid, and even common vinegar. I design making some experiments with it soon.

*Egyptian Corn.*—One word more about Egyptian corn. It is now green, with a crop of from five to eight heads from each root more than half matured. This, should it mature, will be the fourth time ripe seed has been gathered from one planting. From the manner it continues to send up shoots from the old root, I am induced to try if it will not rattoon next spring, by protecting it this winter.

The low price of the great southern staple is having the happy effect of causing proprietors to give more of their personal attention to their plantations; and, as a natural consequence, producing a taste for the science of their profession, and a demand for agricultural publications and improved implements.

Robt. W. Williams.

*Tallahassee, Fa., 13th Nov.*, 1844.

## THE BUFFALO BUSH.

Can any of your correspondents inform me whether the Buffalo Bush is cultivated in the Eastern States, and if so, where it can be obtained and at what price?

Catlin describes it as growing naturally in great profusion on the borders of the Missouri, below the mouth of the Yellowstone, in lat. about 47° north. He says, "it lines the banks of the river and defiles of the Bluffs sometimes for miles together, forming

almost impassable hedges so loaded with fruit that their boughs were everywhere gracefully bending and resting upon the ground. It is the most beautiful ornament that decks the wild prairies, forming a striking contrast to the rest of the foliage, from the *blue* appearance of its leaves, by which it can be distinguished for miles in distance. The fruit which it produces in such incredible profusion, hanging in clusters to every limb and twig, is about the size of currants, and not unlike them in color and flavor, being acid and almost unpalatable until they are bitten by the frosts of autumn, when they are sweetened and the flavor delicious, tasting much like grapes, and I am inclined to think would produce excellent wine. The shrub resembles some of the varieties of the thorn, though it differs certainly in the color of its leaves. It grows to the height of 6 or 7 feet, and often to 10 or 12, and in groves or hedges for miles in extent. We several times took a blanket, and spreading it under the bushes and by striking the stalk with a club, we received the whole contents of its branches in an instant on the blanket. We frequently got 4 quarts from a single blow, and the bushes, relieved of their burden, instantly flew up to their native position." Such a shrub must be a beautiful ornament to pleasure grounds, and you will confer a favor by eliciting information where it can be procured. The intercourse with that region is now so frequent by our western citizens, that it could be easily procured and sent here in great abundance. RUSTICUS.

We are indebted to Mr. Browne for the following information in relation to the above inquiries, and would refer Rusticus to Mr. B's work on the trees of this country, which will shortly be issued from the press.

The Buffalo Bush (*Shepherdia argentea*) is perfectly hardy in any part of the United States, and is one of the first trees to announce the return of spring, often flowering in the neighborhood of New York in March. It arrives at great perfection in Messrs. Winship's nurseries, in Brighton, near Boston, where stands the parent tree which gave rise to all the plants now cultivated, both in Europe and in this country. It was planted in 1823, from seeds sent from the Rocky mountains by Lewis and Clark, and has attained a height of about 20 feet. This species has also been propagated in the vicinity of Boston as a hedge plant, and shows no want of hardihood or vigor of growth. Trees 3 to 5 feet high may be obtained in most of the American and European nurseries, for about 50 cents each, single, and with a reasonable deduction when larger quantities are required. If wanted for a hedge it would be best to obtain the seed, which may be had for about $1 the quart.

## DRIVING SHEEP TO THE WESTERN PRAIRIES.

I HAVE already written "Advice to Western Emigrants," as well as some information upon the subject of keeping sheep in this prairie country, "Cost of a Prairie Farm," &c., for which see Vol. I. of the American Agriculturist. I now propose to furnish your eastern readers a *guide-board*, to direct those vast flocks of sheep whose heads are turned westward to stock the prairies; and these I will start from the western part of New York, and drive them to the north-western corner of Indiana, and there put them into winter-quarters.

I will suppose a flock of 1000 sheep, with a large proportion of ewes, at least three-fourths, and about 30 good rams. I will also suppose the lambs yeaned about the 1st of April, and shearing over the 1st of June.

> "Then up and away with jingling bells,
> Over the hills and through the dells;
> The prairie land is far away,
> But full of grass and sweetest hay."

But first of all, before you start, *get ready*. And like the member who spoke upon the "hog law," who remarked that "he ought to know something of 'em, for he was brought up among them," I would also have you during the drive as familiarly connected with the sheep as he was with the hogs. Every night you must lie down with the flock, and with them rise in the morning. To do this then, first of all, before you start, I say again, *get ready*. Shall I tell you how? "Yes!" Well then—first procure a good stout, steady, quiet yoke of oxen. "Ha! ha! ha!!! to drive sheep with, hey! Why, confound the fellow, he is going to plowing among the stones of his old native state." Oh, no! I am going to tell you how to drive sheep with a yoke of oxen; to which I wish you to attach a good substantial wagon, with a box 14 feet long, having boards about one foot wide projecting out over the wheels, to support the cover, and thereby make more room inside, which is to form a house in which you will cook, eat, and sleep for the next two months. In the forward part you will have a small light cooking-stove, with all your dishes of tin; a table with folding legs (the projecting board upon each side forming seats); and upon a platform made level with the projecting boards you will have ample room and space for a bed for yourself and three hands, while underneath you have stowage room for trunks, &c.

Procure for yourself a cheap saddle-horse, which you can turn out upon grass at night, or tie to the wagon and feed, and two dogs, and with three steady, sober young men, and then, after provisioning your ship, you *are ready*.

Of course, you will not neglect to put on board an axe, a water bucket, and sundry "small fixings," that will enable you to live without committing that heinous sin—"borrowing."

You must, particularly at first, and on dusty or muddy days, drive slow—not over ten miles—increasing as the weather and roads are fine, to 15 miles. Upon rainy days, don't expose yourself, and hands, and flocks, to disease and death, merely because "it is such hard work to lie still." Keep quiet—drive slow—let the sheep graze—and be sure that you get up in the morning, and put the sheep to eating the dew—rest an hour at noon, and always stop, the sun an hour high. And above all things before you start, procure an account of the sufferings of the prisoners confined in the black hole of Calcutta, and whenever you are tempted, "to save trouble," to shut your flock up at night in some dirty little yard, just read that account before you do it. Give them at night ample room to spread themselves.

After you have got a little out of the settlements,

you need not seek for a lot at night at all. Here now your horse comes of use. Ride ahead, and select some good spot for your camp; place the wagon, and gather the flock around it, and with a little salt tell them that is their home. Then let them graze till dark, and then herd them all up around "home," and they will soon lie down, and your dogs under the wagon will take care of the rest till morning. You have no idea how cheap you can travel in this way. The expense on the road will not amount to $1 50 a-day.

A few sheep will fall lame. These and any sickly lambs, should be at once disposed of for what they will fetch; as they tend to detain the whole flock, and soon cost more than they come to.

I would advise that the flock should be of a medium grade of wool, and all strong young sheep. If a finer grade of wool is desired, let the bucks be selected for that purpose. A larger per cent. of loss always takes place the first year, than after—and fine wool grows upon the most delicate carcass. This mortality the first year is owing to the fatigue of driving, and some difference of climate and soil, and a very great difference in the feed, both green and dry.

I will suppose this flock has arrived at the end of its long journey in the month of August, and that you desire to establish winter-quarters upon an entire new plan, or at least upon some small improvement, that you may purchase. I would prefer a location of prairie land adjoining timber, having the timber with plenty of brush on the north and west side as a wind-breaker.

After your arrival, the flock must be in the constant care of one hand and the dogs, or for lack of dogs he must have a horse, as the sheep feel a constant restless disposition to find the outside fence of the "big paster." They must also be put up at night as near the house as possible, and even then a little sneaking prairie wolf will sometimes creep in and make a little mutton,—though a good dog will keep them off, and they are fast growing few and far between. They are easily destroyed by poison, the best for that purpose being strychnine, which is the concentrated poison of nux vomica. One grain is sufficient to produce death in any of the canine race, or other noxious "varmint." It may be administered by putting it in pieces of meat just large enough for a mouthful; or otherwise it is a very good way to put lumps of lard upon chips, and put the poison in the centre, and then place the bait around the sheep-fold fence, or in any other place likely to be visited by the wolves. The big wolves are not prairie settlers. Sometimes, though very rarely, a sheep is bitten by the massasauger, a small black rattlesnake, and then, for aught I know, you will soon have a dead sheep. In my next I shall speak of winter-quarters. SOLON ROBINSON.

*Lake Court House, Ia., Nov. 27th*, 1844.

We shall feel under particular obligation to any of our western friends who will furnish us with an account of the diseases to which sheep are most subject on the prairies, and the best preventives and cures for them. The crop of wool grown in the United States, in a few years, will scarcely be inferior in value to that of cotton; and anything which will tend to cheapen, improve, and add to the security of its production, will be greatly for the public good.

## THE PAST, PRESENT, AND FUTURE PROSPECTS OF FARMERS OF THE WEST.

WHEN we look back at the past, we are struck by the remarkable alterations in the pursuits of the people, and by the changes in the prices of articles. Many years ago a few fine sheep were brought to Kentucky and sold at enormous prices. These prices are gone, but the flocks of the state remain permanently improved. Fine horses commanded also at several times the value of a good landed estate. These too have greatly diminished in price, yet the whole stock of the state has been improved by their introduction. The mulberry mania, the *cow* pox, and the *swine* fever succeeded. The high pressure prices for all engendered by them have passed away. Yet silk is now made, and the herds of cattle and hogs have been greatly improved. The temporary evil is gone, and much permanent good remains behind to benefit the people. The prices of lands, grain, hemp, and stock, too, were constantly varying from high to low. No calculations as to price could be safely made; no engagements dependent on the sales of agricultural products were free of ruinous peril. Many persons, when hemp sold for $7 and $8 per cwt., and beef for 5 and 6 cents per pound, made pecuniary engagements predicated on these prices, and were hopelessly involved. Now, a change has come over the spirit of *our dream*. Shall we profit by it? Good land, it is true, is still held at high prices. But all the products of farming labor are very low, and find us under the dominion of habits produced by high prices. This is our present state and condition.

We talk about governmental economy, and we must practise it at home in our families, or suffer. Retrenchment of expenses is the only safe remedy for the evils of diminished revenue. We must avoid the grocery and the dry goods store, eat and drink what the farm produces, and wear what our wives and daughters spin and weave. Domestic manufactures require no protection, and have but one opponent—*False Pride*. But he is stiff-necked and obstinate as a mule. When will the present dull and flat state of things cease? What causes are at work to produce a better? None visible in the vast horizon. The nations of Europe are at peace, producing their own supplies, except of cotton and tobacco; while the agricultural products of our own country are increasing in a ratio far greater than the demand for them abroad, or than can be produced by the diversion of all other classes at home from field labor. If products for sale cannot be made to command remunerating prices, they will cease to be made, and the importing merchants will be informed of the true state of the country, by their difficulty of collecting from their retailing customers, who sell to the people, and by their inability to dispose of recent importations. People necessarily cease to buy when they are unable to sell wherewithal to pay. If we sell at home, we must buy at home; for we shall have nothing to send where there is no demand. We must then cease to use imported articles unless our exports will pay for them; exports of productions, I mean, for the money of a country is soon exhausted, when it imports and pays in money. We must then export in productions or manufactures, if we consume imported articles. So far as our manufactures at home can supply us with needed wares at fair prices, there is no necessity to the consumer, so far as he is such only for imported wares.

As the home supply of manufactured articles increases, the importation of them necessarily decreases, and when we reach the ultima Thule, the extreme end of a full supply, what then? For the support of the United States government? We must look to the future as well as back, at the past from our present position. For verily the farmers are deeply interested in these matters, and certainly their consideration is not out of place in an agricultural paper.

For the present, the fever for speculation and the rage for riding hobbies excited by comparatively high prices for our produce, have both subsided, nor will they again become epidemic, till higher prices come round again. That may not happen shortly. In the mean time, we must make the most of our diminished resources by economy and good management. To produce the most at the least cost to the land and the pocket, is the highest interest of every cultivator of the land, and this cannot be done without *knowledge*. This is the time then to foster all the means of acquiring it. Farmers clubs; agricultural and horticultural societies; agricultural papers; and above all, to institute agricultural schools. Science, through the aid of institutions, is brought to every art except that of agriculture; and this the most important of all, is left to empirical tentative practice.

Who are the best farmers in every country? The most ignorant? Certainly not. There cannot be half a dozen *best ways* of doing the same thing under similar circumstances, requiring different amounts of time, labour, and expense. Yet we see them practised by men who would all adopt one way if it was proved to be superior to the others. Agricultural schools would demonstrate by repeated and accurate experiments, problems in practice which the cultivators of the soil would as certainly use, as the house carpenter now uses the 47th proposition of Euclid in squaring his work. Is it not strange that among all the munificent donations made by wealthy, patriotic, and public-spirited men for such a variety of purposes, not one has conferred an enduring benefit on his country, and immortalized his own name, by endowing an agricultural institution? Whoever shall raise up such an institution in his lifetime (not leave it to his executor), will be entitled to, and will receive the admiration and gratitude of countless generations.

JOHN LEWIS.

*Llangollen, Ky., Nov. 10th, 1844.*

## EXPERIMENTS IN PLANTING CORN.

During a short visit with which I was honored by your father (Mr. S. Allen), in August last, I showed him a field of corn with which he was so much pleased, that he requested I would give an account of its product, which I promised to do, through the American Agriculturist. The field lies north east of my orchard, and adjoining thereto—a locality with which you are familiar.

When I purchased the plantation on which I now reside, in 1812, the field had been in cultivation in one continued succession of corn crops, for some 20 or 25 years. So soon as I could prepare the ground for the purpose, I put it in Timothy meadow. As it lay adjoining my sheep house, I permitted a small flock of my sheep, during the time they were fed, each winter to run on it. I also applied to it the manure derived from my sheep fold. In this way, in the course of 12 or 15 years, which I suffered it to remain in meadow, it was restored to its native fertility, being naturally as rich as the best Kentucky land. I now raised several crops of tobacco on the ground, when it was again put in meadow, and treated as above. For the last three or four years, preceding the present, it has been in hemp.

Early in April of this year, it was all plowed and once harrowed, and laid off, with great exactness, 3½ feet each way. It was planted on the 13th of April, the ground being very light, and finely pulverized. The corn came up well, and, in due time, was thinned out to three stalks in a hill. It was carefully cultivated by plowing alternately, each way, with the common Kentucky shovel plow, and going over once with broad hoes. The season, up to the 2d of July, was tolerably favorable, though there was too much rain for a first rate crop. The corn was now generally getting into silk. At this period when corn requires much rain, or at least frequent showers, to cause the corn to *ear* well, a drought came on, and no rain fell for two weeks. During this period the atmosphere was very dry, and windy. The consequence was, that there was scarcely an instance of two ears being produced on the same stalk, and even the single ears were much reduced in size. Although, after a drought of two weeks, we had again a succession of light showers; yet they came too late to be of any material benefit to corn crops, as forward as mine. Under these disadvantages the yield fell greatly below what it would have been had not the severe drought of July intervened. Upon carefully measuring an acre, of about an average quality of the field, the product was 77 bushels. I am convinced that if a due proportion of rain had fallen, during the first half of July, the yield would have been fifty per cent. greater. The corn was of the white species, a medium between the flint and the larger kinds, which are more productive, but not so good for bread.

Permit me now to give you the result of another experiment, made during the present year, to ascertain the advantages of planting corn more closely than usual, as recommended by some of our farmers, who have succeeded in raising very large crops under favorable circumstances. My experimental crop was planted on the 12th of April, one day before that described above, upon land which had been cleared in 1810, and preserved in its native state of fertility, by a due proportion of grass crops. Its fertility was about equal to that described above, and was in a field lying on the same ridge, north-west of the rivulet you speak of running through my farm, in your November Number, page 322, of your last volume. This field had been in clover for the two years preceding, and was plowed up last fall, with the view of putting it in hemp, and was consequently in fine condition for hemp or corn.

On one side of the field, I laid off in an oblong square, four acres, each acre lying equally well, and of equal fertility. This ground was again plowed early in the spring, and levelled with the harrow. It was now laid off the long way with great accuracy 3½ feet from center to center, and then checked off the other way in rows; the *first* acre, 4 feet apart; the *second* acre, 3½ feet apart; the *third* acre, 3 feet apart; and the *fourth* acre, 2½ feet apart. The whole was planted the same day; and in due time the three first acres were thinned out to three stalks in the hill,

and the fourth acre to two stalks in a hill. The number of stalks in each acre (if none had been missing) would have been as follows:

| | | |
|---|---|---|
| No. 1, | 3½ by 4 feet, | 9,335. |
| 2, | 3½ by 3½ " | 10,668. |
| 3, | 3½ by 3 " | 12,447. |
| 4, | 3½ by 2½ " two in a hill, | 9,956. |

This crop, of course, suffered equally from the drought with that above described, and having more *outside rows* was more depredated upon by the crows, and did not stand quite as well or with such perfect regularity as the other in the hills. Making the proper allowances for these causes, I did not calculate upon quite as large a product as from the other field. Upon gathering and accurately measuring each acre separately, I found the product as follows: No. 1. 68 bushels; No. 2. 69; No. 3. 69; No. 4. 77½. Thus the acre planted 3½ by 4 feet produced nearly as well as that planted 3½ feet each way; and the latter produced the same quantity as that planted 3½ by 3 feet; and the acre planted 3½ by 2½ feet, and only *two* stalks in a hill, produced 8½ bushels more than either of the others. From this experiment, it would seem that in the best of ground, where *three stalks* are intended to be left in a hill, the distance, each way, should not be less than 3½ feet; and that where it is intended to plant more closely, not more than *two stalks* should be left in a hill. The acre planted 3½ by 2½ feet produced decidedly the best; but it was too close one way to be plowed with convenience. Thus planted there were 8¾ square feet for each hill. If planted 3 feet each way there would be nine square feet to each hill, and the distance would be more convenient for plowing both ways. I incline to think that planting 3 feet each way, with two stalks in a hill, would be the most eligible for convenience and product. As a single experiment is not very satisfactory, I intend, if I am spared, to repeat the experiment next year on the same ground, laying it off one way 3 feet; and the other 4, 3½ and and 3 feet, thinning the last to two stalks in a hill, and the other two acres to three stalks in a hill. In this last experiment I planted the same kind of corn as in the other.

A. Beatty.

*Prospect Hill, Dec. 1st, 1844.*

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To such of our readers as may not have seen the third volume of this periodical, it is proper to say, that they will find complete Northern and Southern Calendars published there, with full directions for the management of the Farm, Stock, &c. The Western Calendar, which we shall give monthly in this volume, is from the pen of one of the most distinguished practical farmers in Kentucky, the Hon. Adam Beatty.

## WESTERN CALENDAR FOR JANUARY.

In this month, the soil is generally bound up by frost, so that no plowing can be done. But the farmer should have his plows put in order, and new ones procured, if needed, so that no time may be lost when the earth is in a proper condition to be plowed. Early plowing makes early crops, which generally—almost invariably—succeed best.

*Care of Stock.*—This is a trying month for stock, and all animals should be well fed, and protected from the wet and cold as far as possible; always recollecting, that where facilities for sheltering stock do not exist, the best substitute is *good feeding*. An animal in good flesh can withstand cold and wet twice as well as one of "Pharoah's lean kine."

*Breaking Hemp.*—In those parts of the west where hemp is cultivated, much of the cold, dry portions of this month may be appropriated to breaking it, as cold, frosty weather is the best suited for this process. Hemp spread the latter part of October of the preceding year, will have been sufficiently *watered* (rotted) to take up and put into shocks by the last of December; and the prudent hemp grower will by this time, have had all his brakes put in order, and new ones procured if needed (always secure those of the best possible construction), that no delay may take place in breaking out his crop. This is a heavy operation, and if not hurried on early, will run into the spring work and greatly retard the pitching of the crop; and will, moreover, produce a necessity for breaking in warm weather, when the process is more difficult and attended with some loss of lint.

*Bulking Tobacco.*—Tobacco cut in due season the previous fall, will have been profitably cured by the month of December. Much of the crop will have been *stripped* in that month, and a due proportion of what remains should be bulked down in stalk, for stripping in damp weather in January. Thus there will be no lack of employment in wet weather.

*Management of Manure.*—Hemp growers are usually not cultivators of tobacco. In wet times they may be engaged in bailing hemp—if they are furnished with a hemp press—and cleaning out their stables, cow sheds, &c. The best method of doing so, is to have the manure thrown at once into a tilt-cart and hauled to the field to which it is to be applied, the driver being furnished with a great coat to turn the rain. By having two carts the operation will be hastened, and one great coat will serve both drivers, Let it be recollected that when manure is hauled to the ground which needs it, all the *extract* drawn from it by the rains is given to the soil, whereas if left at the stable, this is entirely lost. Besides, there is a much greater loss by rapid decomposition and escape of valuable gasses, when the manure is left in a large bulk at the stable door.

*General Observations.*—When not engaged in other necessary work, as large a stock of firewood as possible should be laid up. Let this supply be always kept largely ahead, and there will be no necessity to stop other useful labors to haul wood to keep the family comfortable, and the cook supplied with this indispensable necessary. Graziers, who feed large numbers of cattle upon cut up corn, must *daily*—wet or dry—haul out their usual supply, on Saturday a double portion. The same wagons that haul out corn, may return loaded with wood, after the feeding for the day is completed. As this is a work of all weather, the hands thus employed should be furnished with oil-cloth coats to protect them from the weather, and thus save *doctor's bills*. In this inclement month, the children should be sheltered in comfortable school-houses, and engaged in laying a foundation for future usefulness in all the occupations of life. The farmers, too, in the long nights of January, may be profitably employed in reading the newspapers and instructive books, and especially in studying the best authors who have written upon agriculture, the most useful of all the arts, and thus uniting theory and practice, become perfectly skilled in their profession.

## Ladies' Department.

MATTERS OF TASTE.—*By Mrs. Kirkland, author of "A New Home," &c.*

FARMER DICKSON has a large farm and a larger family—things that go well enough together. He has lived long enough on one spot to have got everything comfortable about him—a good double house, with each row of trees, fence, path, and road around it, "as straight as a gun-barrel," as he says. (*Every one to his taste*, but *we* would rather have a little more variety in these matters. We think a winding or waving line is often a great improvement.)

Farmer Dickson has five daughters; good, industrious girls, able to make butter and cheese, to spin two days' work in one, and to weave flannels, blanket-shawls, and coverlets (in double-work), equal to any weaver. Polly, the eldest, has done so much of this kind, that she has never had time to get married. She has stores of bedding laid by; thirty-four pairs of cotton stockings of her own knitting; (one pair for every year of her age), and a Tuscan bonnet of her own braiding, which nearly cost her her eyesight. Is not Polly a fine girl? (*Every one to his taste*, but we have observed that Polly is quite out of her element whenever she is in company. She cannot sit still, even for half an hour, for the sake of reading or conversation. Her whole soul is absorbed in business, and when there happens to be sickness in the house she leaves all nursing to others, and frets because "the work" does not get on. So we shall not recommend Polly Dickson for a wife.)

Sarah is younger, and has not had time to turn her hands into *claws* with quite so many years of labor. But even she never gets leisure to look at a book. She gives more attention to dress than her elder sister, and so pleases more generally at first sight; but on further acquaintance, when it is discovered that she has not a word to say, but answers in most cases with a silent giggle, she is generally neglected for more sprightly girls. One young man, a surveyor, who put up for a week or two at her father's, was so much pleased with her appearance—for she is really a comely girl—that he had serious thoughts of paying his addresses to her; but happening to pass a whole day in her company, away from home, where she had not her usual occupations, he discovered the extreme emptiness of her mind, and being an intelligent young man, he turned his thoughts in another direction, and Sarah Dickson, seeing him depart with as much indifference as she had seen him arrive, went on making butter and cheese, as if that had been the business of life (*Every one to his taste*, but *we* think butter and cheese may cost too much.)

Farmer Dickson's third daughter differed from her sisters in many respects. She was considered the beauty of the family, and she used to spend all her leisure in preparing various adornments for her person, and particularly in curling her hair with a hot pipe-stem, which produced ringlets very charming in her eyes. On one occasion she was invited to join a sleighing party which was to conclude, as is generally the case, with a ball in the evening. Resorting to her favorite expedient, in her zeal to outshine herself as well as everybody else, she heated the pipe-stem too much, burnt off a conspicuous lock close to the head, and letting fall the instrument in her consternation, disfigured her neck with several blisters, so that she was obliged to stay at home. The story got about, and caused so much joking among the young people of the neighborhood, that the poor girl became quite sulky, and would not go out at all. She consoled herself by gathering a quantity of silk-weed, of which she is now sewing for herself a cape or pelerine, which is to be very elegant. (*Every one to his taste*, but to *our* eye, a silk-weed cape looks somewhat as if it had been made of the skins of green goslings.)

If we seem, in these remarks, to cast some reflection upon our friends the Dicksons, it must be noted that all this extra industry is entirely superfluous, as far as pecuniary circumstances are concerned. Many years of unwearied toil, together with an increase in the value of land, have made Mr. Dickson richer than most of his neighbors, and secured an ample provision for his family. So that what we find fault with, is the miserable plan of toiling on, year after year, laying up stores of articles which are to be useless for a length of time, requiring much care to prevent their being spoiled by moths or mould, while the precious mind is left uncultivated, and the high and ennobling pursuit of self-improvement entirely neglected. In poverty, constant toil is a dreadful necessity; and what is the consequence? Too often, a complete crushing of minds which under happier circumstances might have brought forth fruit an hundred fold.

> "Where penury is felt, the thought is chain'd,
> And sweet colloquial pleasures are but few."

But where there is abundance, it is both sin and shame to narrow down our cares and efforts to the "things which perish in the using." It is certainly both the duty and the privilege of those who have enough and to spare of this world's goods, to devote some part of every day to reading. For old people, whose habits are obstinately fixed, it is usually difficult to begin a plan of this kind; but for the young, nothing more is necessary than, first, a sense of its propriety, and, secondly, one effort of resolution at the commencement. Literature has, in its very nature, something so attractive, that, once begun, it wins its own way. The young woman who has once found pleasure in a book, will be anxious so to economise her time that a portion of every day may be safely devoted to reading; and we will answer for it that those who spend their leisure—the proper leisure which every one ought to have who is not obliged to labor beyond health and comfort—in this way, will be the most agreeable girls in their neighborhood.

But our space allows us only to glance at this subject in the present number. At some future day we shall resume it, with further reference to the Dickson family.

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CARE OF FLOWERS.—The cold by this time is so intense, that it behooves the ladies who have any regard to the healthful preservation of their parlor flowers, to pay particular attention to them. During frosty weather plants cannot absorb as much moisture as in the warmer seasons: be careful, therefore, not to over-water them. Sprinkle a little fine char-

coal dust around each plant. As this dissolves and becomes carbonic acid, it is taken up by the rootlets, and assists in forming stalk, leaf, and flower. Charcoal adds greatly to the bright, fresh, green appearance of the plants, and should be kept in the pots at all seasons of the year: some plants will flourish in that alone without earth or other substances. Be careful to keep up the heat during the night, for there is more loss from want of this precaution than any other cause. Keep a thermometer in the parlor, and do not let it sink below 40 degrees; if you do, there will be danger of the frost injuring the plants. If it is likely to be so cold that the heat cannot be kept up to this point in the parlor through the night, then remove the plants to the cellar for protection.

Among bulbous flowers, the crocus, polyanthus, jonquil and hyacinth, are the most beautiful, and easily cultivated in January. The crocus will expand its petals exposed to lamp or candle light; for this reason it is particularly desirable to adorn the parlor at night. All bulbous plants should be exposed to the sun shining through the windows as much as possible, and be turned two or three times during the day, otherwise the foliage will become yellow. When they have done growing, cease to give them water almost entirely, or they will not flower. For a curious method of growing flowers in the winter, see our last volume page 373.

It was on the 10th of this month, ladies, that he who did so much for flowers, the celebrated Linnæus, died at Upsal, in the 71st year of his age. So far as it may be your province, copy his good works, and revere his memory.

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To keep Bouquets fresh.—These may be kept a long time in full bloom, by inserting their stems plump up to the flowers in water, renewed fresh every day, with a little charcoal in it; and occasionally substituting sea or salt water for the fresh. We thus kept in unfaded bloom, a superb bouquet of flowers given us by a Danish lady, to the end of an eight days' voyage from Copenhagen to St. Petersburgh. A glass put over a bouquet will sometimes recover it when prematurely faded. Bouquets should be made of flowers just bursting their petals, and not from those full blown. They then keep much longer.

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To secure handsome Balsams.—Carefully pick out from the seed bed all plants with *red* stems, and leave those with *white* stems.

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Novel way of Churning.—We cut the following from an exchange paper:

"Sarah, dear," said a waggish husband to his wife, "if I were in your place, I wouldn't keep that babe so full of butter as you do."

"Butter, my dear! I never give it any butter."

"No, but you poured about a quart of milk down it this afternoon, and then trotted it on the knee for nearly two hours. If it doesn't contain a quantity of butter by this time, it isn't for want of churning."

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To make Hard Water Soft.—All who have ever tried it know how difficult it is to wash in hard water, and that it takes much more soap to do so than with soft water. Dr. Clark calculated that by being able to soften the water in London by precipitating its limes, two-thirds of the soap used there would be saved. This would be equivalent to £200,000 ($1,000,000) a year. Pot or pearl ashes, or ley made from common ashes, is generally used to soften water; but these substances are so strong that they skin the hand. From two to four ounces of sal soda dissolved in a barrel of water is usually sufficient to soften it. From one to two quarts of wheat bran put into a kettle of water and brought to a boil, and then scummed off, will also render it soft. Some tie the bran up in a bag and boil it; but we are not certain that this is as effectual as putting it in loose.

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Simple Cure for Croup.—The Journal of Health says, when a child is taken with croup, instantly apply cold water (ice water, if possible), suddenly and freely to the neck and chest with a sponge. The breathing will almost instantly be relieved. So soon as possible, let the sufferer drink as much as it can; then wipe it dry, cover it up warm, and soon a quiet slumber will relieve the parent's anxiety, and lead the heart in thankfulness to the Power which has given to the pure gushing fountain such medicinal qualities.

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Buckwheat Cakes.—To three pints of buckwheat flour, mixed into a batter, add one tea-spoonful of carbonate of soda, dissolved in water, and one ditto of tartaric acid, dissolved in like manner; first apply the carbonate, stir the batter well, and then put in the acid; thus the use of yeast is entirely superseded, and light cakes are insured. One great advantage is, that the batter is ready for baking as soon as made.

*Another* (*considered superior to anything of the kind*).—Dissolve a tea-spoonful of super-carbonate of soda, in a sufficient quantity of sweet unskimmed milk; three tea-spoonfuls of cream of tartar with a heaping quart of flour, mixed dry and well rubbed together; then mix up the whole and bake immediately. If milk is not at hand, water will answer. slightly sweetened with sugar, and a little shortening added to it. The flour and all other materials must be of a first-rate quality.

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Nutritive Qualities of Tea.—M. Peligot states that tea contains essential principles of nutrition far exceeding in importance its stimulating properties; and shows that, as a stimulant, tea is in every respect the most desirable object of habitual use. One of his experiments upon the nutritive qualities of tea, as compared with those of soup, was by no means in favor of the latter. The most remarkable products of tea are: 1st, the tannin or astringent property; 2d, an essential oil to which it owes its aroma, and which has a great influence on its price in commerce; and 3d, a substance rich in azote, and crystallizable, called *theine*, which is also met in coffee, and is frequently called *cafeine*. Independently of these three substances, there are eleven others of less importance, which enter more or less into the compositions of tea of all the kinds imported into Europe. What was more essential, as regards the chemical and hygienic character of the plant, was to ascertain the exact proportion of the azoted (nitrogenized) principle it contains. M. Peligot began by determining the total amount of azote in tea, and finished by finding that it was from 20 to 30 per cent. greater than in any other kind of vegetable. M. Peligot states that by reason of this quantity of azote, and the existence of cafeine in the tea leaf, it is a true aliment.

## BOYS' DEPARTMENT.

WELL, boys, it is some time since we have paid any attention to you, for which we have had many complaints, not only from yourselves, but your parents also. We propose, therefore, during the present year, to remedy this matter as well as we can, by devoting from one to three pages per month of the Agriculturist to your benefit, and trust that we shall have your very efficient aid in our support, by monthly contributions from your own roguish pens—for who can tell what a boy wants so well as himself? If we could only rejuvenate ourselves (that is, grow younger) five and twenty years, when to possess a pet lamb, a puppy, a small stock of poultry, and a patch for cultivation in the garden, was the height of our ambition, we should be a capital hand at this department; but alas, our boyish days have gone, never to return—and we have no youngsters of our own to give us hints or ask us questions, so that we are fearful of our success in interesting you, my fine fellows!

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BREEDING PIGEONS.—Such of you, boys, as have had the advantage of reading the first volume of our work, will well recollect the excellent chapter we there gave you on the different varieties of the pigeon, and the best method of breeding them. We dare say, now, you have plenty on hand; for though they generally lay only two eggs at a time, yet, as they usually hatch monthly, and the young soon pair and follow the example of their parents, they propagate themselves very rapidly. Linnæus computed the increase from a single pair in four years at 18,000! It is our intention to show you some cuts of pigeon-houses in the course of the year, and perhaps a few portraits also of pigeons, together with further hints upon their breeding and management: but, for the present, we shall content ourselves by merely giving you a luscious method of fattening them, which we have lately received in a letter from our excellent friend Sambo, whose acquaintance you will remember we had the pleasure of making in Kentucky, and whom we could not persuade at our interview there to impart to us the secret of his art of fatting poultry. He thinks this of the pigeons will explain it in full; so, boys, you will now have no excuse if you do not present your friends with fine fat poultry for Thanksgiving, Christmas, and New-Year.

*Sunny Rock, in Old Kaintuky, three week afore Merry Christmas.*

*Masser Allen,—Honored Sar:* I'se mity sorry when you says in your last No. you wasn't gwine to write no more about Kaintuky, for people 'way down sun rise, as dey calls he whar you live, can talk what 'em please about de Empire state, Sambo knows well (tho' he neber been dere), he aint nothin to dat Paradise, old Kaintuky. And Masser John, he say so too, and he bin down dere last winter sellin' hemp and Durham Cattle from he plantation. You keep a mity heap of peoples in your big city of New York, but doesn't old Kaintuk feed 'em! Please tell me dat. Masser Allen. I reckon we hab a cave here dat'll swallow you all up like a' alligatur on de Massesseepy does a swarm of flies. And talkin' about de Massesseepy, dat is de most oncommon place I eber did see. Wall, you bin dere, Masser Allen, so I say no more; ony, I wish de water was a *pigeon-pie*, and not a *'sea-pie*, to eat instead ob drink him, for de way he did grip dis nigger's bowels, wusn't slow; and I'se mout well believe I swallow a whole plantation in de nasty, rily, horse pond stuff, in gwine to New Orleans and back to old Kaintuk.

Now de pigeon-pie, dat make me tink ob our 'quaintance on de road to Loudeville, when Masser Allen tried to come it ober Sambo about de way he fat his chickens.* I didn't know you den as I does now, or I'd telled you ezakly, and not put my finger on de nose. I doesn't write as good as some, but as it is to de boys I 'dress myself, I hope 'em understand deir luvin' friend Sambo; and if dey likes his talk, seein' you hab quit Kaintuky, he'll give 'em lingo now and den. Boys, dere is a mity heap yet to tell about what de poets call "de Paradise ob de West," which Sambo tinks means in prose, a great country to grow big corn and cattle, rich grass, sweet taters, and milk and honey as is here so plenty in old Kaintuky!

Wall gwine on de Massesseepy, most down to New Orleans, you sees big rice fields, and you sees big sugar houses. Den you sees, too, alway a mity smart flock of pigins, and dey looks so fat and plump, dat dey hardly sees out deir purty eyes. You needn't salt deir tails to cotch em, dat easy enuf dey be so fat. Oh! dey so makes my mouf water, I almost mind to steal 'em. But I do no such ting nudder; I mind de ten commandments minister toch me at meetin' Sunday, and let em 'lone. When I got to New Orleans, I ask Masser John for four picayune to go to market arly, and buy a par of pigins; and such a breakfast I got as I neber eat afore, since I roast de polecat wid de 'possum and sweet 'tater. So I sot down to study how I mout make him so fat too. Wall I tink it was de sugar and de rice, he pick up on de big plantation—for I sees 'em in de crop; but dat not enuf for Sambo, I want to improve upon de fat, and so *outsell* ebery body in de market. Now, Masser Allen call he Sambo "a genus," and so he be; and so I sot heself to study to make de pigin a sweeter fat dan at New Orleans. Wall, I lay down barehead in de hot sun, on de hurricane deck ob de steamboat comin' up de Massesseepy, and study—den I go down and sweat afore de hot fire under de boilers, and study—den I sing de boatman song so loud dat I drown de noise ob de blow pipe—den I dance de double shuffle—den I lay down in de sun agin; but arter all, I find out just nofin—I ony make my head and shins ache. At last I gits so tired wid study, I goes to Masser John, and ask he. Den he begins in a most oncommon hard kimik to 'splain Mr. Biglie [Sambo probably means Liebig's Chemistry.] about car-bones, [carbon,] ox-gins, [oxygen,] and high-gins, [hydrogen,] ob de sugar; and de starch, de parents-cum-eh, [parenchyma,] de gluten, de force-fat [phosphate,] de me-sole [mesole,] in de rice, dat I tinks at last on *my own soule*, I be de most cumflustered nigger dat Mr. Biglie eber make. So I gin em up, and wont hear no more kimiks; but when I gits back to Sunny Rock and Dinah, I shuts my pigins up, and let em fly out once a day ony for exercise, and grub and gravel. Den I gin em plenty rice boiled in new milk, from Dinah's Durham cow, Big Lady, sweetened a tiny bit wid honey; and, for a change, baked sweet 'tater mixed wid a little possum meat and fat. Oh, Masser Allen! ye neber seed any ting like how he fat in tree week de pigin, hen, and turkey, on dis feed: it be worth comin' all de way to old Kaintuky to eat him. Masser John say it beat all his kimics to fits, and a cocked hat to boot; at which I so lauf, and lay down on de floor and roll, to tink arter all his books, I show better practice dan his Masser John college larnin', dat I fear I bust my biler, and I hab to call on Dinah and Tony to come and pull my

* See Vol. II., page 68.—ED.

hair and kick my shin, afore I can stop. Now dat is all de way I hab to fat de "lushous lookin' poultry," you tell of meetin' Sambo wid. And now, Masser Allen, you please send me your Agriculturist dis yere for dis recipe, den you will much oblige me, and mayhap I'se write some more.

Yours to sarve,

SAMBO.

Now, here you have Sambo's secret of fatting pigeons and chickens, and we must confess we think there is a good deal of philosophy in it, especially in the milk part, for we well recollect in our youth, of reading about "pigeon's milk," which, it is certain, fats the squabs very fast; and if it be so good for the young ones, we may infer that cow's milk, rice, &c., are equally good for old ones. But here is the description.

*Pigeon's Milk.*—One of the chief peculiarities of the common house-pigeon is the double dilatation of the crop, which expands on each side of the gullet, and which the bird is capable of distending with air, as is remarkably shown in the common cropper or pouter. It is in this receptacle that the food of the young is elaborated by being impregnated with a milky fluid, this fluid being more or less abundantly secreted according to the age of the squabs. When the brood are very young, their food is disgorged by the parents in a soft and pulpy state; as they grow up, it is less macerated, till they have reached the age of squeakers, and then the grains are expelled from the crop almost in their original condition. This curious provision in the pigeon is the nearest approach among birds to the mammæ of a higher class of animals. From the changes which take place in the state of the crop during the breeding season, the pigeon may be almost said to have, like the mammalia, periods of lactation. The fluid is of a greyish milky color, coagulates with acids, and forms curd; so that, after all, "pigeons' milk" is not the rare and impossible commodity which the common joke supposes.

*Wild Pigeons.*—These are beautiful birds, and their history ought to be familiar to you. They exist in vast numbers in the United States, especially at the West. We recollect when a boy, of having seen the sun literally darkened in their flight—as if it were hid in a thick cloud; and then the roar they made with their wings as they passed in their airy course, was like a squadron of cavalry in the distance marching at full gallop. The eminent ornithologist, Audubon, speaks of them; but one of the finest descriptions of these immense flocks is contained in "Young Kate, a Tale of the Great Kanawha," written by one of the correspondents of this periodical, John Lewis, Esq., of Kentucky, a man of fine genius and varied learning. If your parents, boys, ever allow you to read a novel, this contains a good moral, much useful information, and is an exciting tale. Here is the account:

"Vast flocks of pigeons had been seen for several days passing by, all in one direction, and Mr. Ballenger had called the attention of his son and daughter to one flock, which stretched across the heavens from the northeast to the southwest; and although they were flying with amazing rapidity, it was fifteen minutes before the rear of the column had passed.

"'Now, let us suppose,' said Mr. Ballenger, 'that they fly only twelve hundred yards in a minute—and they are said to fly a mile, 1760 yards in that time—and the column to be only one hundred yards wide—and I am sure it exceeds that; if we allow two pigeons to the square yard in flying, there were then 400 times the length of the column, which was 18,000 yards long: this gives the prodigious number of 7,200,000 pigeons in one flock." Mr. Ballenger was startled at the result of his calculations.

"Take only the half of it,' said William Henry, 'and what an amazing number—upward of three millions and a half in a single flight! I killed one the other day, and he had at least a gill of acorns in his crop. Now I am sure that more than four times the number in that single flock passed over during the day, all going the same way—that is, more than fourteen millions; and if they only fill their crops once during the day, they would consume 109,375 bushels in a single day, and in the course of a year 39,921,875 bushels: more than enough to feed the mighty army of Xerxes! How are these creatures sustained through the whole year?"

'God, in his infinite goodness,' said Mr. Ballenger, 'has adapted the powers of his creatures to their modes of existence. The teeming earth is the pasture of all. He feeds the birds of the air as well as men and beasts, and he who accomplishes his purpose by the best and most simple means, has made a few feathers the instruments to birds of obtaining their supplies of food. They have not to pay the cost of carriage. The consumer is carried to the food, and not the food to the consumer. Birds are the Arabs of the air; and such is the rapidity of their flight, such the ease with which they pass over great spaces in a short time, that, whenever their appropriate food is exhausted in one part of the earth, or fails to be produced for a season, they seek it elsewhere, and by an unerring instinct find it. Take these pigeons as an example: if they only fly from their perch during one hour in the morning to their feeding ground, and take one to return at nightfall, they have eight or ten hours to ravage the fields and woods to the distance of forty miles from the roost: so that they can lodge at the same place every night till all their food is exhausted in a circle around it, the diameter of which is eighty miles, embracing an area of more than three millions and seventy thousand acres.'"

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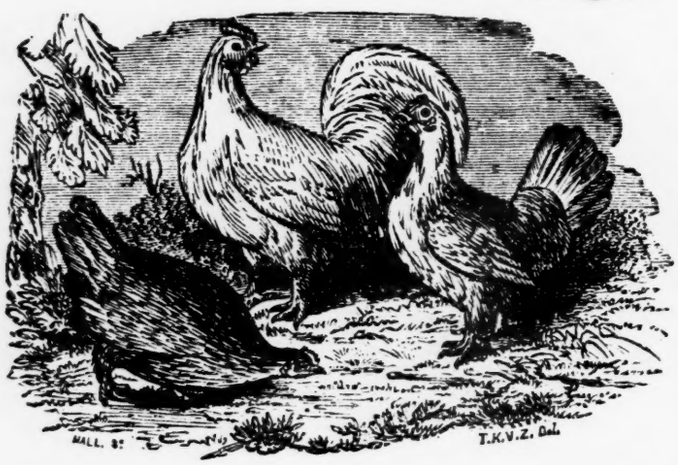
SCHOOL.—This number of our paper should find you all at school, learning your lessons with a zest and pleasure, equal to that of eating apples and cracking nuts, or playing blind-man's-buff, and go-hide-and-seek. You can neither feel nor see the necessity of this now; you must, therefore, take this advice as well as much other upon trust; as older heads are wiser than yours, and know from long experience what is best for you. And don't be content with the mere acquisition of reading, writing, and cyphering; but learn something of geography and grammar, and then what relates directly to your own profession of farming. And in order to do this effectually it would be well worth while to read and study at school many things which are contained here in the Agriculturist.

*Chemistry.*—You ought particularly to study the first elements of chemistry. It is not a difficult science at all, as many suppose, but as easy of acquisition as A B C was when you first began your alphabet. Chemistry is the foundation of science.

teaches you what all the materials of this earth are composed of; such as water, rocks, soil, trees, plants, grass, flowers, seeds, vegetables, animals, and your own persons. What a delightful thing would this be to know, and how useful to you!

*Oxygen.*—This is one thing you will find in chemistry. Is it hard to remember this word? We think not. Sambo, to be sure, makes a mistake and calls it *ox-gins;* but recollect that you have had greater advantages than this worthy colored man, and therefore ought to remember the word, especially as the first syllable of it always brings to mind the cattle you daily care for and drive. Then what is oxygen? It is a substance you can neither see, taste, nor smell; and yet more than half the weight of your own bodies, and every animal breathing, is composed of oxygen. Nearly half of every rock and stone you see—the ground on which you tread—and the house that shelters you, is composed of oxygen. Eight out of every nine pounds of water, is oxygen, and one-fifth of the atmosphere you breathe. Indeed, one half the weight of the crust of this great globe is this airy gas; some think it may be the same with the sun, moon, and stars. Now is this not wonderful? and is not such knowledge well worth your acquisition? But enough for one lesson.



JAVA BANTAM.—(Fig. 4.)

Here is a group of Java Bantams. They are of a white color, with feathered legs, and do not differ materially from such as are quite common the country over. They are the prettiest fowls we know for boys to keep. Bantams are of a great variety of color, some larger, some smaller, and occasionally smooth-legged. There is a beautiful variety of this kind in New York, of a pure white color, and not much larger than pigeons. They mature early, are hardy, great layers, and very fond of being petted They are admirable fowls to run in the garden, as they pick up thousands of insects, and are so small that they do little or no injury.

CHOPPING WOOD.—Night and morning, before and after school, many of you have to chop wood. This is delightful exercise. It expands the chest—opens the lungs—and gives vigor to your arms. Then never grumble at chopping wood, for it has made many a hardy, good-constitutioned man; and the writer of this would be delighted if he could swing an axe half an hour night and morning for exercise, cooped up as he now is in a great city, and obliged to follow an irksome sedentary life. In order to do your work well, see that your axe is sharp—of a proper weight for a boy—well hung to its handle—then go at it. In cutting off a log strike in quite slanting on both sides, it then chips easy. As you get into the stick, gradually lessen the slant, making the cut of the calf on each side as it nears the centre of the log, almost perpendicular. Be very careful not to cut yourselves, which can be avoided by keeping your feet spread out, and as far from the point you are chopping as convenient with comfortable standing. Be careful also not to strike stones or dirt with your axe.

AGRICULTURAL READING FOR BOYS.—On learning our intention to devote some space hereafter to the *junior farmers* of the country, a friend thus addresses us:

The Boys' Department is important, and I hope it will be renewed at once. Your views in relation to the value of agricultural reading suitable to the capacity of boys, are quite correct; and I regret that there are so few writers among us who have the happy faculty of making themselves perfectly understood, and at the same time of interesting and instructing those whom they address. But we must all try, hoping and trusting that some one will succeed at last. I have two sons—one 12, and the other 9 years of age. They are great readers, and no subject affords them so much delight as that sort of agricultural reading which they can understand. The little fellows have fitted up with their own hands, a small out-house adjoining my dwelling, which they call their "farmery." It is in fact a little agricultural museum, and is filled with birds, beasts, and creeping things—not in life—but in pictures and preserved specimens; seeds of great variety; small implements; and other things too numerous to mention. Here they spend many hours when not at school; and on holidays will be engaged there most of the time. I find that they get many good ideas here which they have studied out for themselves, without the aid of the books I gave them, or any of my prompting. I need not add that their innocent and instructive occupations in this way relieve me from many anxious hours, that their absence in street play and the company possibly of vicious boys might otherwise give me. Occasionally, too, I find that they have visiters in the well-disposed boys of the neighborhood, who come in to chat with them, and view their specimens. This seems to interest them greatly, and affords all much amusement.

You will excuse this egotism and parade of a domestic subject; but as I have seen nothing of the kind elsewhere, I have only this specimen in my own family to speak of. The little fellows got this all up on their own hook, without letting me know a word about it till it was completed—partly, I suppose, because I had refused them a corner of my own sanctum for this purpose; and partly, probably, to give me a pleasurable surprise when completed. Now from my own agreeable experience in the benefit of this little affair, I can heartily recommend the example to all parents and children.

## FOREIGN AGRICULTURAL NEWS.

By the steam ship Acadia, we have our European Journals up to the 4th December.

MARKETS.—*Ashes*, both pot and pearl, were slow of sale. *Cotton*, we regret to say, was much depressed, and the fall on the whole during the past month, had been full ¼*d.* to ⅜*d.* per lb. It is lower now than ever before known. Stock on hand at Liverpool on the 1st November, 808,000 bales, against 656,000, same period, last season. *Flour* was dull without change. *Provisions.*—*Beef* and *Pork* in good request. *Lard*, brisk, and has advanced. *Butter* and *Cheese* the same. All American provisions are pronounced decidedly superior in their packing to those of last year; the sales were consequently largely on the increase. *Tallow*, quiet. *Turpentine* has improved with considerable sales. *Tobacco* in good request. *Wool*, firm.

*Money* is decidedly easy. The Bank of England has reduced the interest to 2½ per cent.

*American Stocks.*—No transactions worthy of record.

*Trade* was pretty good, though not so brisk as per our last advices.

*The Weather.*—As an evidence of its mildness, apples and pear trees were in bloom, and with a second crop of fruit growing upon them. Strawberries and raspberries also were producing a second crop of fruit.

*The Potato Crop* in Ireland has proved the most abundant of any on record.

*The Crops in Egypt* are said to be quite deficient the past season.

*American Candles* recently shipped to England, have paid a nett profit of 4 cents per lb. The consumption of this article of our manufacture is largely on the increase.

*Broom Corn.*—Large quantities of the brush of broom corn, raised in the valley of the Ohio and elsewhere, have been shipped to England within three months past, together with broom handles, for the purpose of manufacturing the brooms there. By managing in this way, we understand that brooms can be afforded cheaper in Great Britain, than if made here and then exported.

*Oats changing to Rye.*—Dr. Weissenborn, and several other Germans assert, that they have repeatedly tried the experiment, in the most careful manner, of sowing oats the latter part of June, then cut them twice as green fodder, before shooting into ear, and that thus treated, a considerable number of the oat plants will live through the next winter, and in the following spring change into perfect winter rye. The Gardener's Chronicle of November 23d, copies these statements and others at full length, and seems to half believe them. We shall credit such changes when we see them with our own eyes, and probably not till then. We merely give a synopsis of the report, as so much news.

*Large Potatoes.*—The English papers seem to be vying with each other in recording the largest potatoes grown the past season. Single tubers have been found weighing, respectively, 3lbs. 15oz., 4lbs. 8oz., 5lbs., and 5lbs. 6oz. The last was a red kidney, and grown by Mr. Charles Knapton, of Foggathorp, in the East Riding of Yorkshire. A single haulm produced 100 potatoes, weighing 18lbs.

*Extraordinary Pears.*—Mr. Blackford, of Blockley, Worcestershire, gathered a few days since, from a small tree, 55 pears, weighing 36lbs.; two alone weighed 4lbs.

*Gas Coal Tar for Iron Hurdles.*—In using this, add a double handful of slaked lime to every gallon of gas tar—it will give a polish to them, and prolong greatly their durability.

*To sweeten rancid Butter.*—An agriculturist in the neighborhood of Brussels having succeeded in removing the bad smell and disagreeable taste of some butter by beating, or mixing it with chloride of lime, he was encouraged by this happy result to continue his experiments by trying them upon butter so rancid as to be past use; and he has restored to butter, whose odor and taste were insupportable, all the sweetness of fresh. This operation is extremely simple and practicable for all; it consists in beating the butter in a sufficient quantity of water, in which put 25 or 30 drops of chloride of lime to two pounds of butter. After having mixed it till all its parts are in contact with the water, it may be left in for an hour or two, afterwards withdrawn, and washed anew in fresh water. The chloride of lime having nothing injurious in it, can with safety be augmented; but after having verified the experiment, it was found that 25 or 30 drops to two and a half pounds of butter were sufficient.

*A Short-Horn Controversy* has commenced in the London New Farmers' Journal, that promises to reveal some things which we fancy certain personages who figured so largely formerly, in purchasing and sending out cattle for the American market, will not care to hear. The veteran breeder, Mr. Bates of Yorkshire, is one of the principals in this affair, and the way he shows up certain pretty *long green* horns is a caution to all beholders. There is scarce another man in England who possesses a tithe of the knowledge which he does on this subject, and we would give more for his single judgment in cattle breeding, than for all that the flippant talkers, writers, and jobbers, who have hitherto monopolized the public ear ever knew, or can know, or concoct together.

*India Rubber for Stockings.*—The French have introduced a new manufacture, by making stockings wholly of India-rubber thread; they are made by machines, and are said to be excellent in preventing rheumatic pains.

*Miami Hams.*—Whatever various opinions travellers may have expressed of America, in relation to its manners, customs, or political institutions, all have agreed in highly commending the numerous good things which it produces, for the gratification of the palate and the nourishment of the body. Amongst the many luxuries which they have recently transmitted to us, there is none that will prove more acceptable than their far-famed Miami hams, which possess a delicacy and perfection of flavor that would provoke even the gustative organs of Mussulmen or Brahmins, and force them to love the animal which they have been taught to abhor.

*Waterproof Composition for Horticultural Purposes.*—A very ingenious improvement has been recently introduced, by which calico or linen, the result of a chemical process, is rendered not only impervious to rain, but likewise transparent. As adapted to hot houses, and the other purposes of horticulture, this is a great saving on the score of expense and labor.

*Extraordinary Crop of Wheat.*—One of the finest crops of wheat we ever heard of, was the produce of two acres and one rood of ground, belonging to Mr. J. Attenborough, of Brampton, near Market Harborough. The wheat was cut and stored by itself, and when thrashed yielded nineteen quarters and one bushel (153 bushels) of the finest quality.

*Remedy for Worms and Insects in the Stomach of Calves.*—Take 1 pint of spirits of turpentine, 1 do. train oil, 2 oz. spirits of vitriol, 2 do. asafœtida, 2 do. hartshorn. Mix the whole together in a bottle, and shake it well before it is used. Pour a table-spoonful of the mixture down each nostril of every calf, for three successive mornings; the calves must be kept *fasting* the night previous to giving the dose. Should the first trial not succeed, repeat the dose in the course of a week or ten days.

*Duty on Cotton.*—A strong effort will be made at the next meeting of Parliament, to have this duty repealed.

*Death of Lord Western.*—This celebrated agriculturist died at his residence, at Felix Hall, on the 2d of November, in the 68th year of his age. His name will long rank with those of the greatest benefactors of agriculture in England

*Cure for Hydrophobia.*—A gentleman of Saratoff has discovered that the most efficacious remedy for the bite of rabid animals, is the insect called *tentania aurata*. reduced to powder, and given to the patient. Dr. Wagner has tested the remedy, and met with most satisfactory results.

*Potato Sugar.*—It is stated that they are successfully manufacturing sugar from potatoes in Great Britain.

*Growing Cotton in Cheshire.*—Mr. Maury, son of our late Consul at Liverpool, exhibited, a few days since, a fine specimen of Sea Island cotton in the Exchange News-room. It was grown at his residence, in Liscard, and the specimen shown consisted of two bulbs —one open, exhibiting beautiful cotton, the other closed. It is kept in a temperature of about 80.

*Test for Guano.*—Genuine guano, when burned upon a red-hot shovel, leaves a white ash of phosphate of lime and magnesia. The specific gravity of good fresh guano is seldom more than 1.68, water being 1.00.

*A Heavy Hive.*—A hive of bees recently taken up in England, that swarmed in June, weighed 88 lbs., of which 60 lbs. was pure honey.

*Rhododendron Campanulatum.*—This shrub comes from Gosaingsthan, a mountainous region north of the valley of Nepal. It is said to be the most beautiful of its kind. The best manner of propagating it is by seeds.

*To Preserve Peas from Mice.*—Previous to planting, saturate them in a strong solution of bitter aloes.

*Gardening in Italy* is said to be improving rapidly, especially in the Barromean Islands, Moriza and Padua.

*Chatsworth Fountain.*—A new Fountain has been set in action by the Duke of Devonshire. It is a single jet, and throws a column of water 300 feet high. He is also forming a huge rockery, some of the masses of which weigh upward of 370 tons.

*Protection to Bark of Trees.*—Twisted hay or strawbands bound round the stems of fruit-trees, and slightly coated with gas-tar, will prevent sheep or cattle injuring them. Painting the bark with any kind of mixture may close up the pores of the outer skin, and thus retard the growth of the tree. By the above plan, the air has free access to the boll.

*To Keep Plants and Trees on a long Voyage.*—A correspondent of the Gardener's Chronicle writing from New Zealand says, "I was led to recommend the packing of fruit and other trees in zinc cases, through an inadvertence it is needless to explain; and I regret this the more, as it may be productive of injurious consequences. The trees—apple and pear—to which I alluded in my former letter, and which, after being nine months out of ground (the vessel not sailing until five months after the time stipulated in the advertisement), are now flourishing in my garden, some of them having borne fruit this season, were packed in a deal case, in moss only, and without straw. At Valparaiso I witnessed another successful instance of this way of packing. A Frenchman arrived there, after a voyage of nearly four months, with several cases of flowering shrubs and trees from France, in the very best order. They had each a small ball of earth to the roots, which were afterwards wrapped in moss, and the plants were packed in the same material to prevent their being disturbed. I am anxious to correct any error, because a case of plants was sent to us by the London Horticultural Society, packed air-tight, and they all perished. In the warm latitudes these air-tight cases prevent evaporation, and this causes fermentation, especially if straw be used, as in the instance of a case I received, with the other alluded to above, containing peach, plum, gooseberry, and currant-trees, all of which died."

*A Monster Cabbage.*—This week a cabbage, of extraordinary dimensions, has been exhibited at the shop of Mr. Ridgway. This vegetable curiosity, the Daniel Lambert of the vegetable world, was produced on the allotment of James Wincup: it weighs 56 lbs; its circumference is two yards and eleven inches; and one of the leaves measures two yards and nine inches round. It was grown from seed from Stockholm, and had been manured with guano mixed with refuse of hops.

*Extraordinarily quick Growth of Wheat.*—On the first instant, a field of wheat, which had been previously pickled with diluted sulphuric acid (containing 8 lbs. concentrated acid to the acre), was sown at Mr. Muspratt's farm in Newton, the land having previously been manured with soda waste (16 tons to the acre). In two days the wheat sprang half an inch, and has since progressed in equal proportion.

*Animals injurious to Clover.*—It is a remarkable phenomenon connected with hoar-frost, that the passage of a flock of sheep across a clover-field covered with it, particularly young spring clover, is certainly followed by the destruction of every leaf over which the animals have passed. Pigs and other animals are equally destructive.

*Remedy for Disordered Bowels in Young Calves.*—Mix 2 drms. rhubarb, 2 oz. castor oil, ½ drm. ginger with a little warm milk or gruel. The dose may be repeated in a day or two if required.

*The Deodar.*—This magnificent coniferous tree of the Himalays, usually attains the height of 150 feet, and has a trunk of thirty feet in circumference. The wood is very compact, resinous and fragrant, and capable of receiving so very high a polish that it has been found perfectly sound in the roofs of temples in India which could not have stood less than 200 years.

*Australian Wheat.*—We observe that this wheat has been introduced into England with great success. Can any of our readers inform us whether it has ever been tried in the United States; if so, where it can be had?

*Guano.*—This manure has been particularly tried in France the past season. It is found to attract the humidity of the air, and that no other manure is equal to it in dry sandy soils; it is particularly favorable to the growth of white clover; it destroys several of the vilest weeds of the field; and it kills wireworms and other insects.

*Bones necessary to manure Pastures.*—It is calculated that a milking cow is exhausted in its milk of 20 to 30 lbs. of the substance of dry bone each year, which is necessarily drawn from the soil on which she is pastured. Of course this must be returned in some shape, or the land would eventually become poor in the material of bones.

*French Mode of Propagating Tulips.*—Tulips are obtained in two different ways—by seeds and by offsets. It is ascertained by experience, that any given variety of tulip will not reproduce itself by its seeds; but, on the contrary, many will be originated, differing wholly from each other, thus giving amateurs an opportunity of raising new and improved sorts, which they term "breeders."

To accomplish this with a greater degree of certainty, they increase their chances of success by only sowing seed of first-rate varieties, and especially those the bottom of whose petal is of unsullied purity; as I find that "breeders" thus originated sooner develope their proper colors than those which are the produce of inferior sorts.

# Editor's Table.

A System of Geography, for the use of Schools. Illustrated with more than fifty Cerographic Maps, and numerous wood-cut engravings. By Sidney E. Morse. Pp. 72, quarto, price 50 cents. Published by Harper & Brothers, 82 Cliff street, N. Y.—We have looked over this publication with much care and attention, knowing that Mr. Morse had devoted much of his time for several years past, to make this the best of school manuals; and in this work we unhesitatingly say he has eminently succeeded. For convenient reference; simplicity, and clearness of arrangement; condensation and variety of matter; accuracy of maps and general detail; beauty of illustration, and neatness of typography, we know of nothing equal to the above elementary work, or so deserving a general introduction into our schools; and, we may add, to the private library. The Messrs. Harpers have made themselves famous for their cheap publications; but how they contrive to issue such a work as this at the above low price, familiar as we are with the book-trade, we are at a loss to understand

A Treatise on the Forces which produce the Organization of Plants. With an Appendix, containing several memoirs on Capillary Attraction, Electricity, and the Chemical Action of Light. By John William Draper, M.D., Professor of Chemistry in the University of New York. Published by Harper & Brothers, No. 82 Cliff street, N. Y.; pp. 216, quarto, with numerous engravings—price $2 50.—It is eleven years since Dr. Draper turned his attention to the subject of the work now before us. In every plant, he contends, there are two prominent actions carried forward—the production of organic matter, and its distribution through the various parts of the vegetable system. It is to the consideration of these that his pages are chiefly devoted. In pursuing his subjects, he shows the action of the solar rays in producing the green color of plants, and effecting the decomposition of carbonic acid gas; unquestionably, as he contends, the most remarkable result in physiological and physical science. It is the transmutation of inorganic into organic matter, the yellow ray of light being the operative principle. But it would take us beyond the province of this periodical to pursue the subject before us. Dr. Draper's is a name long favorably known in connection with chemistry and vegetable physiology, and, so far as we are capable of judging, he has written a work of considerable originality, and of great ability; clear and perspicuous in its style, and no less interesting to the agriculturist than the man of general science. The volume is very handsomely got up, and is alike creditable to the author and publishers. We trust that the gentlemen interested in it, will be encouraged by a discerning public to give others of a like character.

Cottage Residences, Gardens, and Grounds, by *A. J. Downing*. Landscape Gardening and Rural Architecture, by the same.

New editions of the above works, greatly improved, we understand, have been published by Wiley & Putnam, of this city, the first editions having already been exhausted. Mr. Downing has two other works also in press, which will appear early in the spring. One is Farm Architecture, following the volume of Cottage Residences; the other, The Fruits and Fruit Trees of America. We are glad to hear of this and predict for these works a large sale.

*Guano Manure.*—We desire to call attention to the advertisement of Mr. Bartlett. This kept for sale by him is the Peruvian, which is much superior to the African. Samples may be seen at our office, and we will execute orders for any of our friends with great pleasure. This manure is very superior for light sandy lands, and on account of the small quantity requisite to produce a good crop, is, at present prices, one of the cheapest which can be purchased. It is especially desirable for gardens and conservatories, having no foul matter in it, and is so lightly and easily handled and applied. For its use and application we would refer to our last volume, where full information will be found regarding the same. It is a mistaken notion that Guano is not *lasting* on land; the genuine Peruvian, after a trial of three years in England, has been found to be more so than the best farm-yard manure.

*Sheep on the Prairies.*—It is estimated that about 47,000 sheep have emigrated to the west the past season.

*Necessity of Manure for the Plantation.*—A correspondent of the Carolina Planter says, by improvident management, we have got to that point in this State [South Carolina], that no planter can make a living—much less accumulate an income, without constantly, systematically, and perseveringly collecting and distributing manures upon his lands. Almost everybody is now satisfied of this, and some few are trying to act upon it; though no one that I am acquainted with does a tenth part of what he ought to do, and might do.

*Sore Backs or Galls on Horses.*—Rub white lead in sweet oil until a good paint is made, and apply a coating of this to the injured place. Milk will do where no oil is to be had. It is one of the most effective applications. Some for the same difficulty use a solution of vitriol in water; but, in most cases, the white lead is preferable.—*Far. Cabinet.*

We will add, that almost any kind of oil answers as well as sweet oil, to mix with the white lead. Sugar of lead is also very good, and perhaps acts milder than white lead.

*Large Crops of Corn.*—Mr. Wadsworth, of Durham, Connecticut, raised from a quarter of an acre the past season, at the rate of 151 bushels and 18 quarts of shelled corn per acre. It was of the improved Dutton variety, and was planted about the first of May, in hills three feet apart, on rich sward ground, manured with 30 loads of common yard manure to the acre. Mr. W. had four acres nearly as good, all of which is attested by the Committee of the Middlesex Agricultural Society.

*Hatch's Machine for sowing Seed and Plaster.*—Can any one inform us where we can see this machine, how it operates, and its price? We have an inquiry for one.

*Harrows.*—Who makes these in the greatest perfection? We have several inquiries for these at the south. Agricultural implement makers would do well to keep us advised of all good instruments, and furnish us promptly with cuts and descriptions of the same.

*Large ear of Corn.*—An ear of corn was raised on the farm of Mr. Abraham Null, on Monocacy, this season, having on it one thousand eight hundred and thirty-eight grains—measuring one pint and a half of shelled corn.—*West. Car.*

*Statistics of Fruit.*—An article on this subject was contributed by Mr. Higginson, of Newburgh, to our last volume; whereupon it partially went the rounds of the press. Some paper recently published it, and gave credit to the *Southern*, instead of the American Agriculturist; and now it is travelling with an increased circulation, the rounds of the press again. Verily, some folks are *amazingly sharp*. But it verifies the old adage, that "stolen fruit is always the sweetest."

*To make dry Trees grow.*—In conversation in our office with a gentleman a few days since, he informed us, if trees that had been some time dug and had become dry, were entirely buried in the earth for twenty-

four hours before being set out, they would often grow when they had appeared to be entirely dead.

The philosophy of the matter appears to be this: the bark and outer vessels of the tree, in drying, are contracted; and though the vessels of the roots, upon being again buried, distend and perform their functions, there is not force enough to carry the sap far up the trunk. By burying the whole tree in moist earth, the cells of the trunk and limbs are expanded in like manner with the roots, so that when again set out, the sap is speedily carried through the whole tree. In this region, where trees are often carried to so great a distance, this fact, if true, is particularly valuable, and should be remembered.—*Prairie Farmer.*

*To protect Hens from Vermin.*—A gentleman from Hanover requests us to state the fact that *pennyroyal*, woven into their nests, will perfectly and certainly protect hens from the annoyance of vermin. He generally makes the nest entirely of this strong-scented herb.—*Southern Planter.*

*Extraordinary Wheat.*—We are indebted to Myron H. Adams, of East Bloomfield, for a fine specimen of white flint wheat, raised by him the past summer. We are informed by Mr. A. that 177½ lbs. of this wheat produced 144½ lbs. of flour, and 32 lbs. of bran and middlings—averaging 48 lbs. of flour to the bushels. If any of the new varieties of wheat introduced among our farmers can show a greater yield of flour than the white flint, we should like to have an account thereof. Mr. A. has two or three hundred bushels of said wheat for sale for seed.— *Ontario Repository.*

*Pennsylvania Wool.*—Some 10,000 lbs. of Pennsylvania wool have been shipped for Liverpool from Philadelphia. The wool was of the most delicate texture.

*Value of the Products of Ohio.*—During the last year, as near as they can be ascertained from the data within reach, they are as follows:

| | |
|---|---|
| Agricultural | $45,362,400 |
| Manufactures | 17,505,690 |
| Commerce | 9,660,379 |
| Mineral | 2,931,218 |
| Forest and lumber | 1,013.063 |
| Fisheries | 10,525 |
| Total | $76,483,185 |

The value of the products of Ohio, exported from the State during the past year, have been about $25.000,000.

*Egyptian Cotton.*—Mr. White, of Louisiana, has on his plantation a cotton stalk, from Egytian seed, about fifteen feet in height. Mr. White obtained twenty seeds, gathered from the garden of the Pacha. He thinks, if carefully managed, it would probably yield from 2,500 to 3,000 lbs. of seed cotton to the acre.

*English Duty on Tobacco.*—Mr. Clay mentions the startling fact, that on the single article of American tobacco, England levies annually an amount of revenue equal to the whole amount of duties levied annually by the United States upon all the articles of import from all the foreign nations of the world, including England herself.

*Peaches in Illinois.*—The idea has become prevalent that our climate is too cold for peaches. The experiment, however, has been made the last year, and the result is, that with proper care, as good fruit can be grown here as in more southern climates. A number of persons have had bearing trees this year. One gentleman informs us that he had one hundred trees bearing excellent fruit. He states that by spreading straw about the roots in the spring, before the frost comes out of the ground, all damage to the trees will be prevented.—*Galena Gaz. & Ad.*

*Mastodon Cotton.*—We were yesterday shown some samples of cotton by the commercial house of Hoops & Marye, which were indeed remarkable. They were all from the plantation of Mr. Abbey, on the Yazoo. Some had already been ginned, and some was in the boll. It is a new description of cotton, never before grown in the United States, and but twenty bales have been picked this year. Mr. Abbey has christened it the Mastodon cotton, considering it much finer than that grown from the common Mexican seed. The seed, he states, was procured in the city of Mexico, four years ago. It was not known or grown there to any extent, and could only be had at one bit a piece, which was the price actually paid for it by a gentleman who brought a few from Mexico in his pocket-book to the United States. Mr. Abbey intends planting no other henceforth, thinking that he can raise from 50 to 100 per cent. more from this than the usual seed.—*N. O. Picayune.*

*Slaughtering Sheep for the Tallow and Pelts.*—They are killing sheep by the thousands at the west, and trying up all of the carcase, except the hind quarters, into tallow. The pelts are shipped to England, and being admitted duty free, pay a fair profit.

*To the Maine Farmer.*—We shall be greatly obliged by the personal appearance forthwith, of the beautiful concentration of the royal blood of *all* the Penobscots encased in the promised wigwam. It can at least be said, there is no *degeneracy* of stock here, that is, so far as *enbonpoint* goes. We have read that sheep, through the influence of climate, were not the only animals that bred fat rumps at the Cape of Good Hope. The specimen figure so gorgeously portrayed, has undoubtedly a *strong cross from that quarter!* Cannot a triplicate proof be spared? We want a few for distribution among our friends.

ACKNOWLEDGMENTS.—To J. P. Fairbanks, Esq., of St. Johnsbury, Vermont, for the Caledonian, containing the proceedings of the Caledonia county Agricultural Society; to C. N. Bement, Esq., of Albany, for his Address before the Housatonic Agricultural Society, Mass.; to Hon. J. S. Skinner, for the Transactions of Newcastle county, Delaware, embracing his eloquent Address upon the occasion; also, to the same, for a pamphlet on Guano; to Ebenezer Mack, Esq, for his Address before the Tompkins county Agricultural and Horticultural Society; Mr. T. Bridgeman, for his Report as Chairman of the Committee on Horticulture, at the late Fair of the American Institute; Edwin Bartlett, Esq., for a valuable pamphlet of 95 pages, on Guano, its Nature, Properties, and Results; to Messrs. Wm. R. Prince and Co., of Flushing, Long Island, for their splendid new Catalogue of over 100 pages, descriptive of Fruit and Ornamental Trees, &c., &c.; Albert G. Carl, Esq., for Transactions of the Queens county Agricultural Society for 1843, and the Address of the Hon. Wm. T. McCoun. It would afford us great pleasure to give a further notice of these valuable productions, but want of time forbids our doing so.

INQUIRY.—Can any one inform us, without taxing us with postage, where Guinea, or African Geese, pure breed, and the small China Geese, can be had? Also, Bolton Grey, Ostrich, and White Poland Fowls; Canvass-back Ducks; Wild Turkeys; Lop-eared Rabbits; and English Fowls. We have constant orders for choice poultry, and shall be pleased to be informed of everything either rare or valuable. Always state prices per pair, &c.

To CORRESPONDENTS.—In addition to those inserted in this number, we have received communications from A. M. Burton, John P. Norton, Thomas Affleck, R. L. Allen, G., Thomas Spaulding, J. H. Cowper, S. C. Charles, Jared P. Kirtland, Sullivan Bates, J. M. K., Querist, K., Ambrose Stevens, A. R. D., Solon Robinson, and T. S. P. We are greatly indebted to our correspondents for their excellent communications, all of which shall appear in due course.

## REVIEW OF THE MARKET.

PRICES CURRENT IN NEW YORK, DECEMBER 24, 1844.

| | | | | |
|---|---|---|---|---|
| ASHES, Pots, | per 100 lbs. | $3 75 | to | $4 00 |
| Pearls, | do. | 4 06 | " | 4 12 |
| BALE ROPE, | lb. | 6 | " | 9 |
| BARK, Quercitron, | ton, | 24 00 | " | 25 00 |
| BEANS, White, | bush. | 1 25 | " | 1 75 |
| BEESWAX, Am. Yellow, | lb. | 28 | " | 31 |
| BOLT ROPE, | do. | 12 | " | 13 |
| BONES, ground, | bush. | 35 | " | 40 |
| BRISTLES, American, | lb. | 25 | " | 65 |
| BUTTER, Table, | do. | 15 | " | 18 |
| Shipping, | do. | 8 | " | 12 |
| CANDLES, Mould, Tallow, | do. | 9 | " | 12 |
| Sperm, | do. | 28 | " | 38 |
| Stearine, | do. | 20 | " | 25 |
| CHEESE, | do. | 3 | " | 7 |
| COAL, Anthracite, | 2000 lbs. | 5 00 | " | 6 00 |
| CORDAGE, American, | lb. | 11 | " | 12 |
| COTTON, | do. | 4 | " | 8 |
| COTTON BAGGING, Amer. hemp, | yard, | 16 | " | 18 |
| American Flax, | do. | 16 | " | 17 |
| FEATHERS, | lb. | 27 | " | 31 |
| FLAX, American, | do. | 8 | " | 8 |
| FLOUR, Northern and Western, | bbl. | 4 50 | " | 4 88 |
| Fancy, | do. | 5 00 | " | 5 38 |
| Southern, | do. | 4 50 | " | 4 88 |
| Richmond City Mills, | do. | 5 50 | " | 5 75 |
| Rye, | do. | 3 25 | " | 3 50 |
| GRAIN—Wheat, Western, | bush. | 95 | " | 1 05 |
| Southern, | do. | 95 | " | 1 00 |
| Rye, | do. | 65 | " | 67 |
| Corn, Northern, | do. | 52 | " | 54 |
| Southern, | do. | 50 | " | 52 |
| Barley, | do. | 58 | " | 60 |
| Oats, Northern, | do. | 32 | " | 34 |
| Southern, | do. | 29 | " | 31 |
| GUANO, | cwt. | 3 00 | " | 3 50 |
| HAY, | 100 lbs. | 40 | " | 45 |
| HIDES, Dry Southern, | lb. | 9 | " | 11 |
| HEMP, Russia, clean, | ton, | 170 00 | " | 175 00 |
| American, water-rotted, | do. | 105 00 | " | 165 00 |
| American, dew-rotted, | do. | 75 00 | " | 125 00 |
| HOPS, | lb. | 13 | " | 15 |
| HORNS, | 100. | 1 25 | " | 5 00 |
| LEAD, | lb. | 3½ | " | 4 |
| Sheet and bar, | do. | 4 | " | 4½ |
| MEAL, Corn, | bbl. | 2 44 | " | 2 75 |
| Corn, | hhd. | 12 00 | " | 12 25 |
| MOLASSES, New Orleans, | gal. | 27 | " | 30 |
| MUSTARD, American, | lb. | 16 | " | 31 |
| NAVAL STORES—Tar, | bbl. | 1 81 | " | 1 94 |
| Pitch, | do. | 88 | " | 1 00 |
| Rosin, | do. | 58 | " | 75 |
| Turpentine, | do. | 2 50 | " | 2 88 |
| Spirits Turpentine, Southern, | gal. | 35 | " | 38 |
| OIL, Linseed, American, | do. | 68 | " | 70 |
| Castor, | do. | 65 | " | 70 |
| Lard, | do. | 55 | " | 65 |
| OIL CAKE, | 100 lbs. | 1 00 | " | —— |
| PEAS, Field, | bush. | 1 25 | " | —— |
| PLASTER OF PARIS, | ton, | 2 62 | " | 2 75 |
| Ground, in bbls., | of 350 lbs. | 1 12 | " | 1 25 |
| PROVISIONS—Beef, Mess, | bbl. | 5 00 | " | 7 00 |
| Prime, | do. | 3 00 | " | 5 00 |
| Smoked, | lb. | 5 | " | 7 |
| Rounds, in pickle, | do. | 3 | " | 5 |
| Pork, Mess, | bbl. | 8 25 | " | 10 00 |
| Prime, | do. | 6 50 | " | 8 12 |
| Lard, | lb. | 5½ | " | 6½ |
| Bacon sides, Smoked, | do. | 3½ | " | 4½ |
| In pickle, | do. | 3 | " | 4 |
| Hams, Smoked, | do. | 5 | " | 10 |
| Pickled, | do. | 4 | " | 7 |
| Shoulders, Smoked, | do. | 4 | " | 6 |
| Pickled, | do. | 3 | " | 4 |
| RICE, | 100 lbs. | 2 88 | " | 3 38 |
| SALT, | sack, | 1 38 | " | 1 45 |
| Common, | bush. | 23 | " | 30 |
| SEEDS—Clover, | lb. | 6½ | " | 8½ |
| Timothy, | 7 bush. | 10 00 | " | 12 00 |
| Flax, rough, | do. | 10 75 | " | 11 00 |
| clean, | do. | 12 00 | " | 12 50 |
| SODA, Ash, cont'g 80 per cent. soda, | lb. | 3 | " | 3½ |
| Sulphate Soda, ground, | do. | 1 | " | — |
| SUGAR, New Orleans, | do. | 4 | " | 7 |
| SUMAC, American, | ton, | 25 00 | " | 27 50 |
| TALLOW, | lb. | 6½ | " | 8 |
| TOBACCO, | do. | 2½ | " | 6 |
| WHISKEY, American, | gal. | 24 | " | 25 |
| WOOL, Saxony, | lb. | 45 | " | 66 |
| Merino, | do. | 40 | " | 50 |
| Half-blood, | do. | 30 | " | 35 |
| Common, | do. | 25 | " | 30 |

## NEW YORK CATTLE MARKET—Dec. 23.

At market 1150 Beef Cattle (all from the North and East), 80 Cows and Calves, and 2500 Sheep and Lambs.

Beef Cattle are a little cheaper—ordinary $4 25 *a* 4 50; prime $5 25 *a* 50, and some choice $5 75.

Cows and Calves—same as last week, $14 *a* 30.

Sheep and Lambs are a little cheaper; we quote Lambs 87½ *a* 2 37½, and Sheep 1 37½ *a* $5.

Hay—Brisk demand at 62½ *a* 75c cwt. for loose.

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Remarks.—*Ashes* depressed. *Cotton* the same. Export from the United States since 1st September last, 377,768 bales; same time last year, 209,580; same time year before, 338,669. *Flour*, Wheat and Rye, steady; Buckwheat dull. *Grain*, Wheat, Rye, and Corn, in good demand; Oats slow of sale. *Hay* in fair request. *Hemp* dull. *Molasses* little doing. *Naval Stores* quiet. *Provisions*, Pork very firm. Hogs have advanced in Cincinnati, and ranged on the 12th ult. from $2 75 to $3 12½; up to this date 135,000 had been killed, but it was thought the whole number of the season would fall much short of that of last year; Lard is very brisk, and large quantities going to England; the same with Cheese when found of a proper quality; Beef is dull. *Rice* of prime quality much wanted. *Seeds* in fair request. *Sugar* quiet. Recent letters from New Orleans represent the late crop as likely to be 160,000 hhds., notwithstanding the loss by frosts of full 15,000 hhds. *Tobacco* without interest. The Virginia crop is said to be short, and will not exceed 40,000 hhds. *Wool* not much doing.

*Money* continues in good demand, the banks getting 6 per cent, capitalists 5 to 5½. On account of the low price of Cotton, the amount of sterling bills offering at this season is not as great as usual, so that specie continues to be remitted to Europe in moderate sums. Export of gold and silver from 1st of January last up to November 30th, $5,632,102. Import, $1,072,654. Export more than import, $4,559,448.

*Stocks* of a good kind are firm and rising.

*The weather* here is mild and delightful. At the South the same, and we notice that they are still in the enjoyment of green peas and corn from their gardens.


## FASTOLFF RASPBERRY.

The subscriber has much pleasure in stating, that he can execute orders for canes of the above highly valuable and much esteemed Raspberry, unequalled for the extraordinary size of its fruit, and richness of flavor. In England it is considered superior to all other varieties, and at various horticultural exhibitions, has carried off the prizes. Dr. Lindley's opinion of it is thus expressed:—"We find it merits all that has been stated in favor of its excellence. The fruit is very large, obtusely conical, and of rich flavor. The plants bear abundantly, and in long succession."

It is scarcely necessary to recommend it more fully, or with greater confidence to the notice of the public. It continues in high perfection throughout the autumnal months, and requires no other treatment than that ordinarily bestowed on the older varieties.

Fine canes are ready for delivery, and can be sent with safety to any part of the United States, upon the following terms:

| | |
|---|---|
| Packages containing 25 canes, - - - - - | $8 00 |
| Do do 12 do, - - - - - - | 5 00 |
| Single canes, - - - - - - - - - | 50 |

These plants are *warranted the true Fastolff Raspberry;* and as the stock is limited, early orders only can secure a few plants.

Orders addressed to the undersigned will receive attention—and from unknown applicants, a remittance, or satisfactory reference is requested.

M. J. HOWARD.

*Horticultural Gardens, Flushing, L. I.*

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PARSONS & CO.,
Flushing, Long Island.

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A. B. ALLEN, 205 Broadway, N. Y.

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## PREMIUM EAGLE, SUBSOIL, AND OTHER PLOWS.

The subscriber having been appointed agent in this city for the sale of the celebrated Premium Plows, made by Ruggles, Nourse, & Mason, of Worcester, Massachusetts, now offers them at the manufacturers' home prices. They are calculated alike for the Northern Farmer and Southern Planter, and embrace the following varieties:

| PLOWS. | Description. | Plain. | W. or C. | W. & C. | Moulds. | Lands. | Points. |
|---|---|---|---|---|---|---|---|
| Cotton or Rice Plow. | 6 inch. | $3 50 | ..... | ..... | $1 13 | $0 25 | $0 25 |
| do. do. do. | 7 do. | 4 00 | ..... | ..... | 1 17 | 33 | 25 |
| Furrowing do. | Double Mould. | 4 00 | ..... | ..... | 1 50 | ..... | 33 |
| Garden do. | No. A 1. | 4 00 | ..... | ..... | 1 25 | 50 | 33 |
| Light Horse do. | No. A 2. | 5 00 | ..... | ..... | 1 50 | 67 | 42 |
| Seed do. | No. A 3. | 7 00 | .8 25 | .9 50 | 2 00 | 75 | 50 |
| Horse do. | No. 1 B. | 6 50 | .8 75 | .9 00 | 2 00 | 75 | 50 |
| Stubble do. | No. 2 B. | 7 50 | .8 75 | .10 00 | 2 00 | 92 | 50 |
| Two Horse do. | Eagle, No. 1. | 9 50 | .9 50 | .11 00 | 2 25 | 92 | 58 |
| Light Break-up do. | " No. 2. | 8 00 | .10 00 | .11 50 | 2 50 | 1 00 | 58 |
| do. do. do. | " " Coul. | 8 50 | .10 00 | .11 50 | 2 50 | 1 00 | 58 |
| Heavy Break-up do. | " " No. 3, Imp. | 10 00 | .11 50 | .13 00 | 2 50 | 1 00 | 63 |
| do. do. do. | " " No. 4, " | 9 50 | .11 00 | .12 50 | 3 00 | 1 25 | 67 |
| do. do. do. | Sward B, | 10 00 | .11 00 | .13 00 | 3 00 | 1 25 | 67 |
| do. do. do. | " D, Coulter, | 10 00 | .11 50 | .13 00 | 3 00 | 1 25 | 67 |
| Breaking-up do. | " C, | 12 00 | .13 00 | .15 00 | 3 25 | 1 25 | 63 |
| Light Horse do. | No. 0, Side Hill, | 9 00 | .10 50 | .12 00 | 2 75 | 1 13 | 67 |
| Two Horse do. | No. A 1, S. Hill, | 5 00 | ..... | ..... | 1 25 | 75 | 33 |
| Three Horse do. | No. A 2, S. Hill, | 9 00 | .10 50 | .12 00 | 2 25 | 2 00 | 67 |
| Road do. | No. A 3, S. Hill, | 11 00 | .12 50 | .14 00 | 2 75 | 2 25 | 75 |
| Large Road do. | No. A 4, S. Hill, | 13 00 | .14 50 | ..... | 3 00 | 2 50 | 83 |
| Rice do. | Trenching Plow, | 15 00 | .16 50 | ..... | 3 50 | 2 75 | 88 |
| One Horse do. | Subsoil, No. 0, | 6 00 | ..... | ..... | ..... | ..... | 50 |
| Two Horse do. | " No. 1, | 6 50 | ..... | ..... | ..... | ..... | 50 |
| Heavy do. | " No. 2, | 8 00 | with Draft Rod, | do. do. | ..... | 10 00 | 50 |
| | | | | | | 15 00 | 75 |

"Plain," at the top of the third column, means the plow without wheel or coulter. "W." in the fourth and fifth columns, means wheel. "C." coulter or cutter. "Moulds and Lands," mould-board or land-side. "Points," are the extreme ends of the plowshare attached with bolts. These can be instantly replaced by new ones when worn out. The wheel adds greatly to the ease of draught, and should always be ordered for the larger plows, say from No. A 3, down, whether for the south or the north. Coulters are only necessary to cut through the sod, and render it easy to turn over while breaking up green sward land. They are much liked at the south for cutting through crab-grass sod. Extra moulds and lands are not often wanted. Two extra points should always accompany each plow.

The great number of premiums which these plows have obtained at the most important plowing-matches, and the universal satisfaction they have given wherever introduced, render it unnecessary to particularise their merits. They are made of the best materials, are highly finished, and combine light weight and easy draught, with great strength and durability. They are especially liked at the South, and though the first price is higher than the common kinds, they do their work in so superior a manner, and with a draught so much easier for the team, that they are universally preferred where known. It has been proved at the South, that a single pair of good mules attached to the Eagle plow, No. 1, in any reasonably friable soil, will easily turn a furrow of 6 inches deep by 12 inches wide. In addition to the above good qualities, being made of the best materials and highly finished, these plows last much longer than the common kind; they are consequently much the cheapest in the end.

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